THE SPACE GAMER

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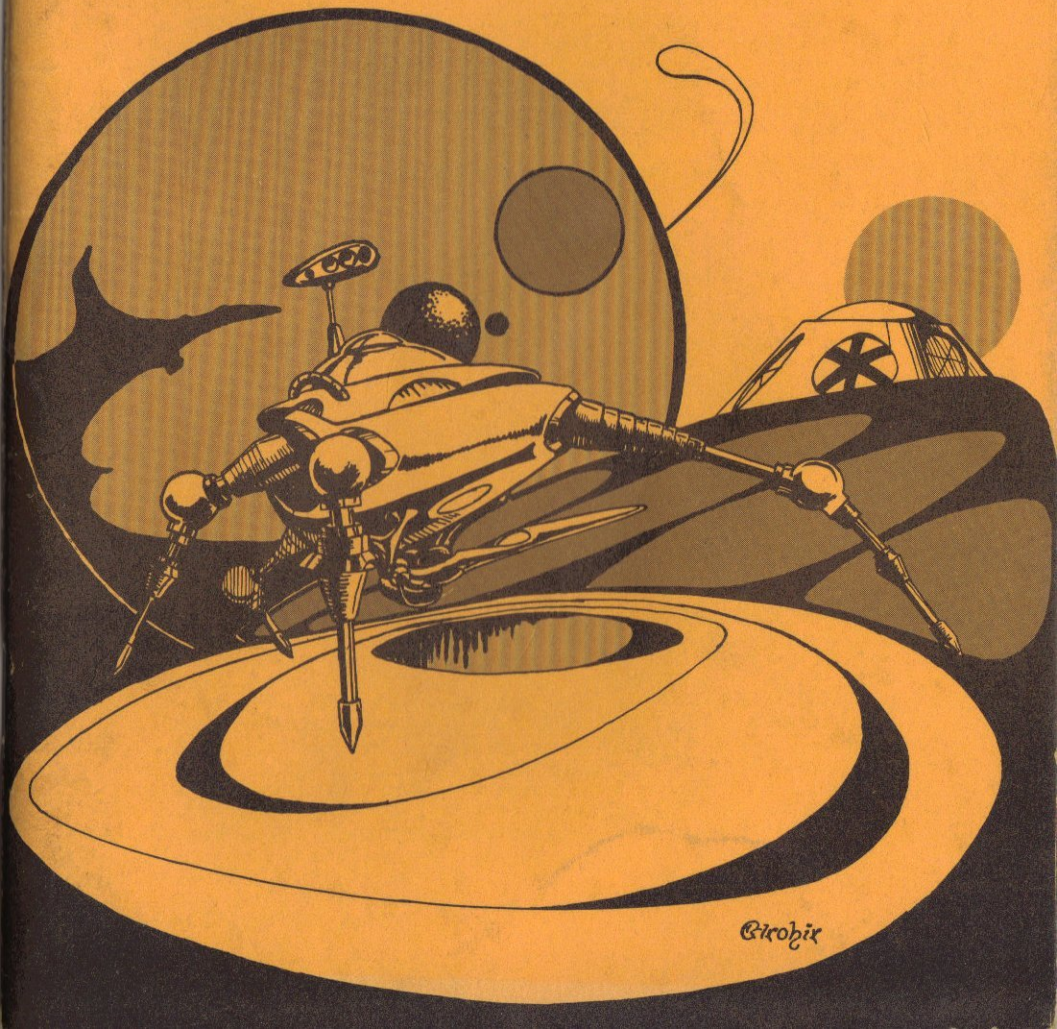

THE SPACE GAMER

NO. 10
FEB-MAR

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WHERE WE'RE GOING

Metagaming's 1977 plans are already off to an excellent start. CHITIN I: Harvest Wars, our second MicroGame goes to the printers in the next two weeks. Like OGRE this is another nifty $2.95 "quickie". OGRE, the first MicroGame, is already a smash best seller by MGC standards. In the six weeks since its introduction at Texas A&M's WARCON it has already sold as many copies as STELLAR CONQUEST did in its first ten months. We haven't even had any of our major advertising hit yet.

MicroGames seem to be what game and science fiction fans have been waiting for. CHITIN I is sure to be as popular as OGRE. The ad elsewhere in this issue gives the details. For those who've long and patiently waited for HYMENOPTERA CHITIN I is a preliminary teaser that will whet your appetite even more.

GODSFIRE is proving very popular too. When it was realized that it would have to be a $15 price we had some trepidations. Early feedback for GODSFIRE is running at a 7.8 rating which is very high. The growing group that is finding GODSFIRE so intriguing will be glad to know that a tactical MicroGame from GODSFIRE will be MicroGame #3 or #4.

Other Micros in the works are MELEE, from our upcoming LABYRINTH fantasy role game, EREWHON, WARPWAR and a CHITIN II. We hope to relate Micros to larger games where ever possible so that our major game systems are represented in multiple formats on several levels.

You'll note that this issue of TSG does <u>not</u> contain a feedback form for subscribers. Feedback response has dropped to 8-10% which means the vast majority aren't using them regularly. It is a drain on our resources to have them printed and stuffed. We're going to try having a feedback about twice a year and making those special events. That way more are likely to respond and they better serve their purpose. Comments invited as always.

January/February has been great for Metagaming/TSG. What was expected to be our low point for the year has been a bare let up from the fall buying surge. TSG circulation was expected to drop a bit but resubscriptions are pouring in and the stream of new subscribers isn't letting up. The number of stores carrying our games and TSG is expanding too.

PLEASE NOTE that many stores who buy from us do so because one of our subscribers refers them. Sending us the name of your local game or science fiction store seems like a small act. But, its suprisingly effective. For example, last week Forrest Johnson, a TSG subscriber, showed his local Abilene Texas hobby shop a copy of TSG and OGRE and sent us the address. We sent our usual store data packet. We shortly got an enthusiastic phone call order. If Abilene Hobbies carries TSG/MGC your local store is a good bet too.

Next issue will be a special GODSFIRE edition. Features will include a GDF designer's article by Lynn Willis, a GDF play session, a GDF special cover and a new Eldon Tannish story.

DESIGNER'S NOTEBOOK

A SYSTEM FOR GENERATING COMPLEX RESULTS WITH SIX-SIDED DICE
or,
WHAT TO DO WHEN YOU LEFT THE 13 1/2 SIDED ONES AT HOME

by
Steve Jackson

Most role-playing games, and some conventional combat systems, use not only the standard six-sided dice but also various, more arcane, polyhedra. The 20-sided "percentile" dice are often encountered, but Dungeons and Dragons, Empire of the Petal Throne, and a few other games call for 4-, 8-, and 12-sided dice in addition to the 6s and 20s. This can create certain difficulties, as everyone who has played these games is well aware. The special dice are expensive and sometimes hard to find; it is monumentally aggravating, for instance, to purchase D & D and then find you can't play without laying out more money and waiting another couple of weeks for dice.

Furthermore, while six-sided dice are available literally everywhere (anyone can be expected to have a few lying around), the only way to be sure of finding the others is to take them with you wherever you go - which is a pain in the neck. And if you lose them, you're sold out of luck.

The following formulas offer a way out of these difficulties by eliminating the need for polyhedra. Using these methods, one can achieve the exact same probabilities, using regular six-sided dice. Only two, preferably of different colors, are needed.

THE 4-SIDED DIE

The tetrahedron, or four-sided die, is idiotically easy to dispense with. Just roll your regular six-sided die - but whenever you get a 5 or 6, ignore it and roll again.

THE 8-SIDED DIE

You will need two six-sided dice, preferably of different colors, to simulate the octahedral die. One of these is designated the "base" die; the other is the "control." Roll the base to get a number from one to four, as above; keep trying until you get that 1-4. Then roll the control. If you get a result of 1, 2, or 3, add 0 to the base die's result; that is the base result is your final result. On a control result of 4, 5, or 6, add 4 to the base result. Example, using a red base die and a white control, you roll red 3 and white 5. Therefore, you add four to the base roll of 3; your final result is 7. A moment's thought should convince you that this system has an equal chance of giving you each of the numbers from 1 to 8.

THE 10-SIDED DIE

Ha. There is no such thing as a 10-sided die. However, you may occasionally want to generate a number from 1 to 10 - for instance, to duplicate the effect of a chit system like the one used in Strategy 1. Again, a base and control die are used. Roll the base die for a number from 1 to 5; that is, ignore sixes and roll again. A roll of 1-3 on the control means you keep that result; a roll of 4-6 means you add 5 to the base die result.

THE 12-SIDED DIE

The dodecahedron, or 12-sider, is a very handsome-looking object (its faces are pentagons) more commonly seen as a desk calender. However, if you don't feel like investing in one (or repainting a calendar) you can live without it, as follows: Use a base and control die. Roll the base die normally - that is, to get a number 1 through 6. On a control roll of 1-3, keep the base result; on a 4-6, add 6. (I encountered this system in Starguard, published by McEwan Miniatures; all I did was generalize it to the other types of dice.)

THE 20-SIDED DIE

The icosahedron, with its 20 sides, has two distinct uses in gaming. It occasionally appears as a die numbered 1 through 20. However, it is more often seen numbered 0 through 9 twice; such dice, sold in pairs, are the "percentile dice."

To simulate the 1-20 function, use two six-sided dice. Roll the base for a number from 1 to 5, as above. Then roll the control for a number from 1 to 4.

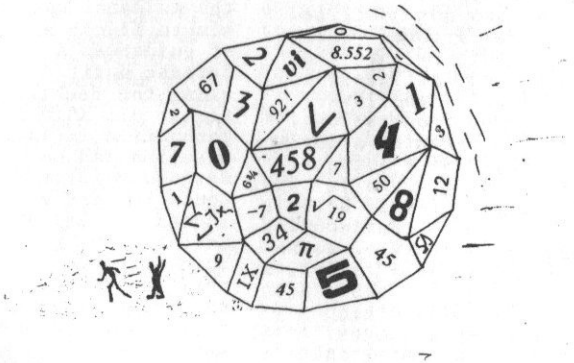
On a control die roll of 1, keep the base die roll.
On a control die roll of 2, add 5 to the base die roll.
On a control die roll of 3, add 10 to the base die roll.
On a control die roll of 4, add 15 to the base die roll.
On a control die roll or 5 or 6, roll again.

This method has a equal probability of giving any number from 1 to 20.

To simulate the percentile function, two rolls of two dice each are required. Use the system described above for generating numbers from one to ten, but take a '10' result as '0.' Roll the two dice once for the tens figure, and once for the ones; as with actual percentile dice, '00' is 100.

These formulas will allow you to dispense entirely with all dice except the standard six-sided sort, if you wish. If you're good at doing math in your head (and this is pretty simple math), this way is as fast or faster than keeping all the different sorts of dice straight.

Of course, the logical solution would be for game designers to avoid using weird dice. I can see the value of percentile dice if you want to set up character attributes, or LONG tables of possible occurrences- but when you design a game for percentile dice, you should also use them in the CRTs, et cetera, so only one type of dice is needed for any one game. As far as most gamers are concerned, this might be the biggest service of all.



SPECULATIONS

TANK:
PRESENT, FUTURE, OGRE

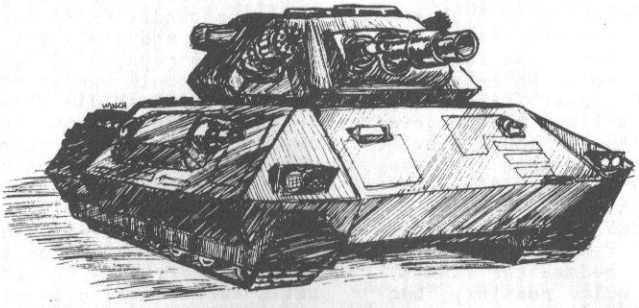
by Charles R. Bowles

The tank is now and will be a viable weapons system into the indefinite future.

Many sources have recently implied that the tank may be on the way out due to anti-tank technology. Even game designers making simulations on future tank warfare occassionally sound almost apologetic about thinking of tank combat in the future. (NOTES ON THE OGRE by Steve Jackson, TSG#9 "Present anti-tank technology (air attacks, laser- and wire-guided missiles, etc...) have made it too cheap and easy to kill those million-dollar tanks.")

The most recent test of the viability of armor was the Arab-Israeli Yom Kippur War. Many consider the Israelis the finest tankers in the world both from a theoretical and a practical point of view, and when the major portion of their early heavy losses in tanks were the Soviet Sagger infantry anti-tank missile, it seemed the day of the tank might be drawing to a close. However, the Israelis knew when the tanks were committed without infantry, it was poor operational doctrine. The army was not mobilized yet and only a few armored reserves were available to throw into the breach. Later, when sufficient infantry was available, the Israelis went back to a proper operational doctrine of mixed infantry armor and achieved very impressive success with acceptable losses even in tanks. The Israelis, least of all, believe the day of the tank is over. During the fighting, the U.S. tried to replace part of the Israeli losses, as the Soviets did for the Arabs. Both Arabs and Israelis placed high priority on tank replacements.

Any advantage an anti-tank system gains over tanks is to a large extent transitory; lasting until tank design can be changed or until operational theory can be changed. Since fin stabilized shaped charge rounds have become the major ammunition used by Soviet tanks, NATO tanks are being designed with spaced armor plate or composite armor plate both of which are more effective in stopping penetration by shaped charge rounds. The Israelis now believe they have an operational doctrine which will allow them to defeat the Sagger missile even without friendly infantry support. One overwatch tank fire team observes while the other tank team moves. If a Sagger is fired, the overwatch team will fire at the Sagger launch point and warn the target unit of the direction the Sagger is coming from. The moving tanks will rotate and discharge their guns in the Sagger's general direction. All guns discharge Beehive rounds which release a high velocity cloud of thousands of dart-shaped projectiles about the size of finishing nails called flechettes. The Sagger is a relatively slow missile which must be delicately guided to the target by a man observing both the target and the missile from the launch point. The missile must be in flight for a minimun of four seconds, and for best results six to eight seconds, in order to allow the guidance man to gently stabilize and properly aim it. The Israelis believe that long before the missile can reach target, they can cover both launch point guidance man and missile with clouds of high velocity flechettes. Even if they fail to hit the missile or guidance man (the odds favor a hit on one or the other), the impact of thousands of flechettes all around the guidance man is certain to cause him to flinch at the critical moment of guidance. A similar operational defense doctrine against missiles using the Beehive round is used by almost all NATO tanks. All first generation infantry anti-tank missiles can be countered by this method. However, the Beehive round would be less effective against second and third generation infantry anti-tank missiles like those now being deployed by NATO because of their improved guidance and higher speed. For future missiles a quicker system will be needed. Perhaps twenty or thirty mini-mortar tubes or claymore mines firing Beehive type rounds spaced around the turret and a heat seeking or mini-radar unit on top. Any fast moving object coming within 50 meters would automatically trigger a blast of high velocity flechettes into the path of the missile. Remember that the thousands of flechettes in each round are too



small to damage nearby friendly tanks and every missile approaching a tank formation will take Beehive rounds from several tanks. Whatever form the defensive system may take, as missile technology advances so does anti-missile.

It has been proposed that small nuclear warheads will spell the end of the tank in the future, but nukes are the reason tanks will have to be a major weapon on the battlefields of the future. Tactical nuclear doctrine of the present calls for a small nuke to blow a hole in the line and the attack force to roll over ground zero as soon as possible and exploit the breakthrough. For troops walking, this would not be safe for one to one and a half days. A jeep screens out about 20% of the residual radiation, an Armored Personnel Carrier (APC) about 40% and a medium tank about 90%. The key to creating and sustaining a successful breakthrough is the concentration of force. You must outnumber the defending troops at least two to one. This concentration creates an opportune target and as a result the breakthrough area is likely to receive a nuke from the enemy as well. This situation is further complicated by modern communications and artillery techniques. During the Vietnam fighting a 155 mm artillery battery could send off the first round against a target of opportunity within 200 seconds of receiving the target coordinates by radio. With new targeting computers the U.S. 155 mm artillery units in Europe can send off the first round against a target of opportunity 55 seconds after receiving target coordinates. The response time for a good 155 mm self-propelled howitzer battery firing an immediate suppression mission against a priority target is only 18 seconds. Any concentration of strength must be capable of rapid movement to survive. With a one kiloton nuke, detonation, infantry in the open are vulnerable only at 300 meters or less. Infantry may be able to defend dug in, but they cannot concentrate in the open for an attack and expect to survive. Hover craft and space suits powered for flight may be able to maneuver the infantry around the battlefield but any hit in the general area with moderate sized nukes will eliminate them. Men need the mobility and heavy armor of a tank or APC to survive the heat, blast, and radiation of nuclear battle.

While it is true that a direct hit with a nuke warhead would destroy any tank yet conceived, this is also true of most anti-tank warheads fired at tanks today. The limiting factor on anti-tank warheads normally is not the effectiveness of the warhead, but the difficulties in getting the warhead to the target. The missile or aircraft delivering the warhead can be jammed or shot down etc., and if you are firing it from a gun, you will have to have something about the size of a tank to carry it anyway. It may be possible very soon to build laser triggered nukes small enough to be fired by very small weapons, perhaps rifles or machineguns (LASER WEAPONS TSG#5). Although these super small nukes would create great dangers for tanks, they would also give the tank its greatest defensive weapon. A radar controlled nuke firing machinegun with proximity fused rounds would provide excellent defense against low flying aircraft, and missiles, and any terrain likely to contain enemy infantry could be sprayed with a quick burst of nukes. The development of the small caliber nuke would not

mean the end of the tank but might mean the end of the close support attack aircraft and helicopter.

Current research on high energy laser weapons centers around the rocket pumped laser. The rocket exhaust supplies both the energy and cooling for the laser (LASER WEAPONS TSG#%). If this laser system develops as expected, it could provide an effective tank weapon. The weapon would be heavy but the 120 mm high velocity gun and shock-absorbing mounting on tanks today are in the weight area of two tons already. Will the laser become the tank's major weapon? Quite possibly, but only time will tell.

The question in the use of advanced computers (cybernetic brains) to replace crews in weapons systems such as tanks is not so much if it will occur as when it will occur. The replacement of crewmen by a computer will probably not be a sudden dramatic event which brings about a national debate over the moral, social, and psychological ramifications of a computerized terror monster killing people. The number of crewmen will be gradually reduced until only one man controls the tank, and as time goes on his duties will become fewer until he becomes more of a burden on the system than a benefit.

The AIR FORCE/NAVY joint project cruise missile, which has already undergone several very successful test flights, uses a TErrain and COntour Matching guidance system (TERCOM) which allows the missile to fly a few hundred feet above the ground through valleys, over mountain ranges, picking a pre-selected course for over two thousand miles, and then recognize the target by radar appearance, and plant its nuclear warhead within 30 meters of intended ground zero. The system does this by comparing radar or video scans of the terrain around it with memory stored scans of the correct course on a continuous basis. The system visually finds its way two thousand miles and then recognizes its target. What more would a cybernetic tank need for guidance?

The separation of functioning units into friendly and enemy objects would not be difficult. Since WWII all combat aircraft have carried Identification Friend or Foe (IFF). When an aircraft comes into radar range, an electrical unit within the radar system automatically asks the aircraft by radio signal to identify. If the correct automatic coded radio response is not received, the radar blip is automatically designated by the radar computer as Foe, and, if anti-aircraft missiles are available, probably shot at. These IFF radio responder units can be made very small and are light in weight. Even those capable of complex coded responses could easily be carried by individual soldiers and changed in their coded response every few days. In short, the cybernetic tank would shoot up any warm object (body heat or engine heat or visual recognition) which did not give the correct friendly response. Some type of IFF system may be on tanks and with infantry long before the cybernetic tank. It is presently too easy to mistakenly engage friendly units, particularly at night.

With terrain matching guidance, Identification Friend or Foe, and target recognition systems already existant, only the decision making limits of the computer and the cost prevent the deployment of cybernetic tanks. A few years back a computer could not beat a chess master more often than it lost, but in the last couple of years the computer has had good luck against masters. This is exactly the type of logic it will take for the tank's computer brain to make the proper decisions about when to fight and when to run, when to head for cover and when to stop and shoot, when to take an enemy unit head on and when to try to maneuver for a flank shot.

From the cost point of view, computers of all types are dropping in cost and increasing in capabilities. We are still in the infancy of micro-circuitry and logic circuitry. For the foreseeable future the cost of all military hardware including tanks will go up and the cost of computers will drop. There will come a time when the moderate cost of a computer brain for a tank will be far outweighed by its ability to increase survival probabilities on the very expensive tank.

The first and foremost advantage of the cybernetic tank is the speed of reaction and thought. A cybernetic brain would be able, for instance, to receive and confirm information from video, radar, and infra-red sensors on an incoming anti-tank missile, decide whether to out maneuver or fire at the missile, and launch the appropriate actions similtaneously in far less than one second. Although lacking in what is commonly known as cunning and unpredictability, the cybernetic tank would make errorless lightning decisions far beyond the capability of the finest human crew. This speed and accuracy would extend to every

aspect of tank performance.

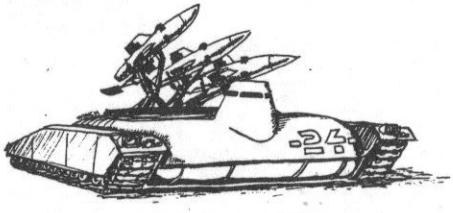
All other advantages stem from the fact that no human (or other intelligent life forms) are within the tank. No worry about crew morale or discipline, the unit is expendable without problems. No worry about food, water, or rest for the crew. The tank can be moth balled indefinitely and still be ready for combat without the need for training or mobilization of reserve crews. Since there is no need for the large crewspace within the tank, the cybernetic tank would have a far lower, compact, and therefore harder to hit silhouette. Without a crew the cybernetic tank could be designed to withstand far more in the way of vibration, shock, heat, blast, and radiation. With shielded electronics which are hardened against radiation, the tank could operate far closer to nuclear blasts than one with a human crew. It would be able to roll over ground zero while the radioactive cloud was still rolling upward. This is also true for nukes fired by the tank. The tank could fire a nuke and then roll into or through the radioactive dust cloud and hide from laser beam guided missiles and heat seeking missiles.

The cybernetic brain of the tank would be located at the exact center of the tank hull within a lead box. This shielding would allow the small but complex computer to survive tremendous radiation levels (strong radiation can effect transistor semi-conductor materials etc.) From the brain, circuits would control every device on the tank. Nuke firing guns would be the primary weapons of the tank. The cybernetic brain would gather target information, make decisions, aim and fire weapons so quickly that the projectile time of flight to target would become the critical time factor, and a high velocity gun projectile is much faster than the missile. Nuke warhead missiles would be used for air defense and engaging targets at very long range. A nuke firing machinegun would be used for close-in defense against infantry and air attack. The entire tank would be designed to withstand a terrific blast effect and even tremendous heat for moderate periods of time. The engine would be a small nuclear power plant which transfers excess and waste heat to the hull of the tank. It can operate without oxygen in a super hot mushroom cloud or under water.

Tanks normally operate with friendly infantry, but the cybernetic tank would operate most of the time independently due to its unique characteristics and capabilities. The description of the basic OGRE game is one OGRE tank against defending infantry and armor. This scenario would accurately represent one of the key uses of the cybernetic tank. Seconds after a tactical nuke has blown a hole in the enemy line, an OGRE would be sent through the still rising mushroom cloud to destroy, disrupt, and disorganize the enemy units immediately behind the front line. The OGRE would prevent the enemy from organizing an adequate defense of that sector of the line until friendly manned units could arrive, and then it would press hard into the enemy rear area well ahead of friendly manned units.

One interesting theoretical modification of the OGRE would be the LOGRE or Light OGRE. The cross-country performance of today's tanks is limited more by the relatively slow driver reflexes and the ability of the crew to withstand kidney jarring shocks and vibration than any other factors. With the almost instantaneous reflexes of the cybernetic brain and its ability to withstand shock and vibration, it would be possible to build a lightly armored and lightly armed (small nukes are still potent) tank capable of extremely high cross-country speed. It would move at speeds between fifty and eighty m.p.h. across the roughest terrain using every rock, ravine, ridge, clump of bushes, and radioactive mushroom cloud as cover. It would not try to fight front line units, but slip by them and then raise havoc far and wide in rear areas until it was caught. With its speed and ability to fire on the run, it would not take long to do a great deal of damage. It would also be the ideal guerrilla warfare unit. It could hide by day and strike by night.

If I find fault with OGRE it is not with the basic concept of the game or with the basic scenario, but with the date of 2085 A.D. The OGRE is certain to come to the battlefield, and it will be here before 2020 A.D.



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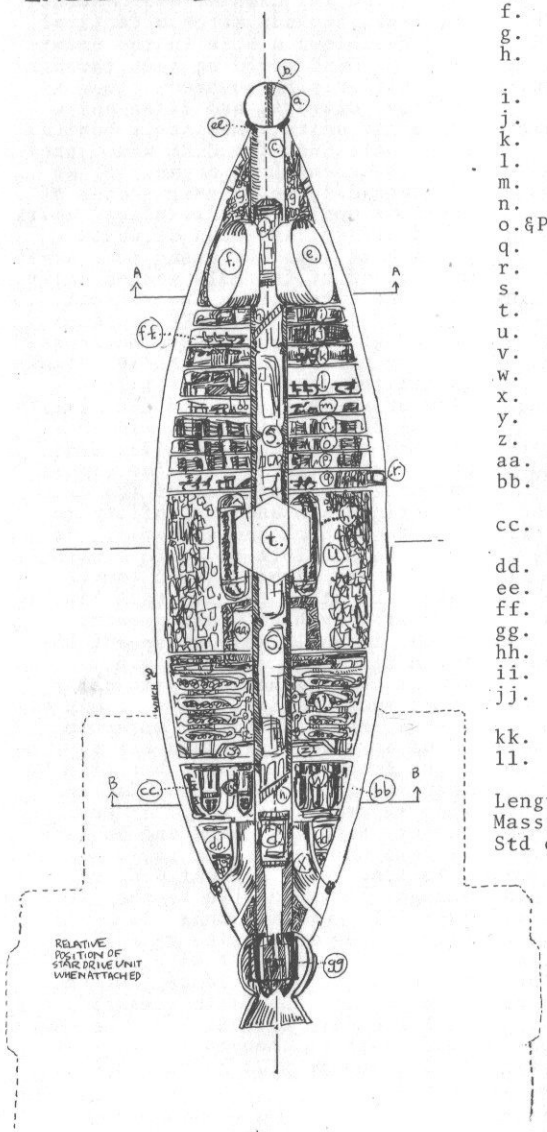
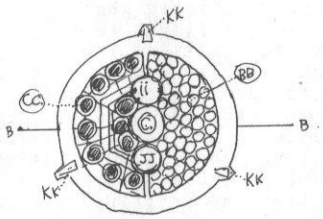
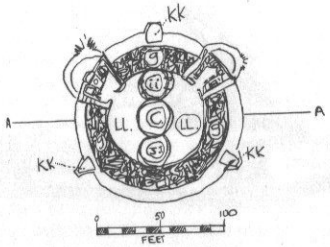
BASIC VERSION

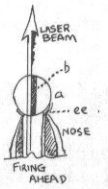


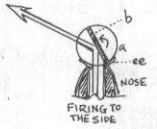
a. Laser mirror support (clear glassteel globe)
b. Laser mirror (director)
c. fwd Laser channel
d. Focusing lens (gas type)
e. Control room
f. Gunnery and astronomy room
g. Sensors
h. Liquid Crystal Mirror (laser control)
i. Officers' Quarters
j. Library
k. Showers & toilets
l. Kitchen & messhall
m. Gym
n. Marine's Bunkers
o.&P. Crew Bunkers
q. Recreation
r. Docking Airlock and Suit room
s. Two-ended Laser (ultraviolet)
t. Manuvering Gyros
u. Cargo
v. Hydroponics
w. Launching deck
x. Launch tubes (4)
y. Engeneering
z. Life support
aa. "Bomb Shelter"
bb. 43 50-megaton Planetary Attack nukes
cc. 11 Shuttles (max capac. 70 each)
dd. Launch Control
ee. electrostatic rotator
ff. Briefing Room
gg. Torch Drive
hh. Fuel Tanks
ii. Elevator shaft
jj. Cryonic Tube (critical circuitry and computers)
kk. Waste Heat Radiators
ll. Access Corridors

Length: 630 feet .
Mass: 120,000 tons
Std crew size: 770









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FEATURES

PLANETARY PROBABILITIES IN STELLAR CONQUEST

by

Christopher Chyba

Generally, I greatly dislike figuring probabilities for games. Turning a game such as SC into a mathematical exercise often makes playing it much less enjoyable. However, after one of my archrivals in SC asked me to lend him the game for a few days so he might figure out probabilities for various classes of stars, I realized that a definite "Planet Information Gap" would soon exist if I didn't take some action designed to match anything he might discover. Thus, as a direct outcome of this threat of scientific lag, I present here, for SC players everywhere, the probabilities of obtaining various types of planets for each of the different spectral classes of star:

CLASS B STARS	
BR:	82%
MT:	64%
ST:	18%
TR:	00%
BR (NM):	73%
MT (NM):	18%
ST (NM):	00%

CLASS F STARS	
BR:	83%
MT:	67%
ST:	50%
TR:	25%
BR (NM):	50%
MT (NM):	17%
ST (NM):	17%

CLASS G STARS	
BR:	100%
MT:	95%
ST:	85%
TR:	75%
BR (NM):	15%
MT (NM):	05%
ST (NM):	00%

CLASS K STARS	
BR:	85%
MT:	85%
ST:	62%
TR:	15%
BR (NM):	31%
MT (NM):	15%
ST (NM):	00%

CLASS M STARS	
BR:	95%
MT:	95%
ST:	41%
TR:	05%
BR (NM):	14%
MT (NM):	05%
ST (NM):	00%

What do these figures mean? Several observations can be immediately made. Obviously, if you're looking for a TR planet, go to a G class star. If all the G's have been colonized, go to an F class star, then a K, then a M. If you need a NM planet desperately, and you have CET, go to a class B star, but remember, all but two of the "B" planets will not support more than 20 million colonists. (I'll let the fanatics among you figure population precentages for different spectral class stars.) If you don't have CET, but still need that NM planet, go to either a B or F class sun. However, if you are really in trouble, and are looking for a long-shot chance for the game to be given to you, go to those F class stars for that big 17% chance of finding a ST (NM) planet.

These figures can also be used to shed some light on the advisability of pursuing various strategies depending on the entrance hex you draw. For example, how much does the probability of getting a G class star decrease when you enter quadrant #1 at 2 MA instead of 3 MA? Or, for that matter, suppose you wish to sink your initial 25 IU's into IIT so that you can build extra IU's starting as early as turn 4 on the TR or NM planet you hope to colonize. How much does only moving 2 instead of 3 reduce your chances of finding that G or NM planet which you must find by turn 4 for your IIT expenditure to mean anything? Or, even more basic is the question: which route to the stars offers the highest probability of finding a valuable planet?

These questions can be answered by utilizing the previously given probabilities. For example, suppose you are entering in quadrant #1. For the first case, imagine that you have decided to enter with a movement allowance of 2, instead of 3. The only sane route to take at 2MA in this quadrant is straight to

Scorpii. You simply don't have the time to go anywhere else (unless you are crazy and want to go to a M class star instead of a G class one). The probability of finding a TR planet by taking this route is, of course, the same as it is of finding a TR planet at any one G class star (75%).

Let us now suppose, however, that you decided to enter at 3 MA. Depending on the route you take, this can raise your chances of finding a TR or NM planet tremendously, simply because your CT's will have a chance to colonize a greater number of stars. The probability of finding various important types of planets when entering quadrant #1 at different speeds and different routes is summarized in Table #1. Figures once again represent the probability of finding the listed planet type or a more Terran-like planet. Several points must be noted here: (1) It is assumed that when a ship is targeted to a star, it must stop at that star even if it has some of its MA leftover when it reaches the star; (2) Some of these routes, in particular the route from the entry hex to either Hamal or Scorpii and so on depend on SCT's checking out as many stars as possible so that you can decide which way to send your CT's; (3) Probabilities are figured in the following way: Probability of finding a TR planet on the 1 to Barnard to Scorpii to Dubhe route = 100% - (% chance of not having a TR planet at Barnard) (% chance of not having a TR planet at Scorpii) (% chance of not having a TR planet at Dubhe) = 100% - (95%)(25%)(25%) = 100% - 6% = 94%; (4) Some of these routes are not quite as good as they look. For example, if you go from Barnard to Hamal, you will be forced to either commit yourself to Scorpii (assuming there was a TR planet there) before you could discover whether there are any NM planets at Altair or Kruger, or else you will have to commit yourself to Altair or Kruger with no chance of returning to Scorpii if you strike out: (5) It is assumed that players are willing to leave 1 million colonists on some "intergalactic-hell-hole" in order to extend the range of your CT's.

Many observations can be drawn from this chart, however, I will leave all but one of these to the reader. My observation is: by investing your 25 IU's into IIT instead of 3 MA, you reduce your chances of finding a TR planet within the first four turns by as much as 19% and your chances of finding a NM planet by as much as 35%! Is this worth the risk? Or, are you a gambler enough to risk the 75% 1 to Scorpii route?

In quadrant 2, there are comparatively fewer "sane" ways to enter the map. (See Table #2). Observations: once again, bear in mind that if you move your CT's to Rastaban, it will be impossible to turn back. You will also notice that entering with 2 MA instead of 3 makes only a 4% difference in this quadrant.

Quadrant 3. (See Table #3). Observations: At 2 MA, your chances of quadrant 3 of finding a NM planet are almost nill. Also, your chances of colonizing a TR planet drop considerably. Although the 3 to Indi to Kapetyn to Canis or Diphda route offers excellent chances of gaining a TR planet, it is assumed once again that you are willing to drop 1 million colonists off on some lesser star. Also, remember if you go on to Diphda, there can be no turning back--and Diphda is also quite exposed to attacks from quadrant 2.

Quadrant 4: (See Table #4). Observations: A MA of 2 makes no difference in this quadrant in terms of finding a TR planet, although it does affect your chances of getting a NM planet by up to 14%. On the 4 to Wolf to Tauri route, you run a 5% risk of not being able to leave 1 CT behind to colonize Wolf in order to extend your range to Tauri. If this 5% chance actually occured, you would be in dire straits.

Let us compare the four quadrants. Obviously results vary considerably. Quadrants #1 and #3 are far superior to quadrants #2 and #4, primarily because in quadrants #1 and #3 the player can take a route which gives him a shot at two G class stars, an impossibility in quadrants #2 and #4. In these two quadrants, the player must commit himself to one G class star. Obviously, entrance hexes should be chosen at random, or else different quadrants can be assigned as a form of handicapping for players of different abilities. Remember, however, that in each quadrant, the odds are still in favor of finding a TR planet by turn 4. If you are playing with three people, the player in the middle should get the best quadrant, namely #3 or #1, and the two on the outside should take quadrants #2 and #4 in order to help balance out the fact that the player in the middle is boxed in. If playing with two, it would be best to use either a 1-3 or a 2-4 combina-

tion. Use the 1-3 combination if you get your kicks out of NM planets, 2-4 if you prefer otherwise. Of course, if you are unprincipled, and you are allowed to choose your quadrant, choose quadrant #1.

But what about the old 2 MA vs. 3 MA question? The four tables show that 2 MA makes little difference in quadrants 2 or (especially) 4. If you have one of these two, and you want to try 2 MA, to ahead. I would, however, recommend against it in #1 or #3.

Also, the quadrant you enter may influence your initial strategy of whether to go heavily into IU's and RIU's on NM planets or into faster speeds or whatever. Originally, I used to go from 3 MA to IIT to 6 MA to USR, and then raid my opponents' quadrants, (which worked well and was fun), but then, unfortunately, I discovered the devastating industrial combination of RIU's and NM planets, so now I go quickly into RIU's (which I must do, since my opponents are doing it also). Unfortunately, I felt this took a lot of the freewheeling fun out of the game. It's a shame.

One last comment. I don't claim probabilities are infallible. Just allow me to say this before the next issue is crammed full of articles pointing out any mistakes I may have made. And somebody please tell me how to rid the game of the all-consuming RIU buildup!

TABLE ONE

MA	ROUTE TAKEN	PROBABILITY OF FINDING: TR MT	(NM)	ST	(NM)
2	1 to Scorpii	75%	05%	00%	
3	1 to Barnard to Scorpii or Hamal to Kruger or Altair	81%	40%	00%	
3	1 to Barnard to Scorpii or Dubhe	94%	14%	00%	
3	1 to Scorpii to Procyon	81%	21%	17%	

TABLE TWO

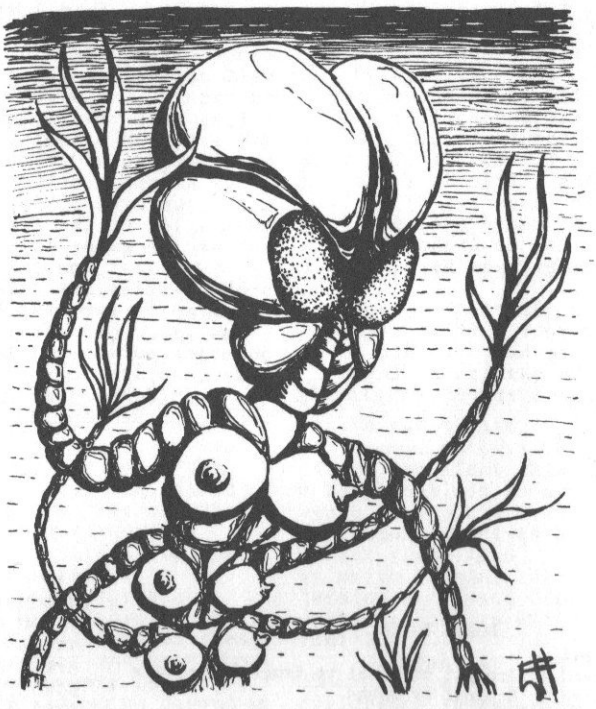
MA	ROUTE TAKEN	PROBABILITY OF FINDING: TR MT	(NM)	ST	(NM)
2	2 to Lalande to Ceti	76%	10%	00%	
3	2 to Mira to Ceti or Rastaban	80%	23%	00%	

TABLE THREE

MA	ROUTE TAKEN	PROBABILITY OF FINDING: TR MT	(NM)	ST	(NM)
2	3 to Canis	75%	05%	00%	
2	3 to Indi	15%	15%	00%	
3	3 to Indi to Canis to Ophiuchi or Kapetyn	81%	27%	00%	
3	3 to Indi to Kapetyn to Canis or Diphda	95%	27%	00%	

TABLE FOUR

MA	ROUTE TAKEN	PROBABILITY OF FINDING: TR MT	(NM)	ST	(NM)
2	4 to Bootis	75%	05%	00%	
3	4 to Bootis	75%	05%	00%	
3	4 to Wolf to Tauri	76%	10%	00%	
3	4 to Wolf to Arcturus	19%	15%	00%	



STELLAR CONQUEST:
ALIEN INTELLIGENCES
by
Chet Edwards

In the quest for more realism in STELLAR CONQUEST, the thought has undoubtedly crossed your mind concerning a provision in the rules for the possible existence of other "minor alien" races and meetings with them besides confrontation with player races. Realize, though Metagaming did not directly create a scenario of this type - as was stated in TSG before, SC was designed to be a basic game with revisions and/or additions to the rules left up to the players themselves. Metagaming did create a set of rules which, completely detailed and comprehensive, were still designed with an unusual degree of flexibility in mind. Most variations would fit smoothly in. Doesn't it seem a little unnatural such a desirable cluster of stars would be totally devoid of life?

In the rules, section 1.0 - the Introduction - it states: "the cluster is a desirable colonization target because of spatial compactness and the presence of a high proportion of G class, sol type, stars. As would be expected, the G class stars have a high probability of possessing earthlike planets: however, the planets in the cluster are too young for any type of intelligent species to have evolved."

Your scientists sent your colonization group to the cluster because of its unusual characteristics. By the same reasoning, if your race, any race, is intelligent enough to master interstellar flight or even intergalactic flight, they would also realize the great probability of other races attaining this capability also? Wouldn't this "unusual" galactic cluster attract these other races also? So, while no new species could have evolved in the cluster, isn't it entirely plausible other intelligent races may have moved there already?

Just as the Basic Ship Attributes and limited intelligence systems help restrict unrealistic movement on a players part, the possible meeting of other races anywhere on the gameboard with fleets of their own would add a new dimension of realism to STELLAR CONQUEST. With this play system, a player will no longer know a star does not hold life until he has explored it. Authentic safequards never used before suddenly become crucial to good game strategy. Movement comes one step closer to being factual as

players begin to experience the uncertain factor of too many variables.

How would one go about regulating alien races? Who would control them? How do you give them the color needed for interesting play? These are the first questions to come to mind. Here are a couple of ways of regulating such a variant. Please note the ideas are strictly exemplary and should serve only as guidelines for further thought. Every individual has his own tastes.

The first way, without the use of a moderator, is to use the extra blank star cards included in the basic STELLAR CONQUEST game. Taking a fine tipped, black felt marker, write the name of your desired racial type along the top of the blank card. (Avian, Humanoid, Reptilican etc.) Now identify the planet type the race inhabits as well as any other worlds their system may contain. This can be done in the same way as found on the regular star cards. After adding planetary characteristics, record fleet strength, other colonies or even stars the world controls, any information you deem pertinent.

Variety is necessary in the makeup of the races to keep play interesting and realistic. Make some races weak, others strong and so on. Only four races should be created per game, unless you expand the gameboard. One in the G star pile, one in the F star pile, and one in the M and K star piles usually insures at least two of the alien races will be found within the course of the game. In most instances, all three or four are discovered. Note: not every star should have a race, obviously. When you start to throw more than four subordinate races into the game, it starts to lose the flavor, the realism your trying to add. Even with four races you begin to stretch reality.

Figure it this way: There are a total of 54 stars on the playing surface, divided into different color groups. The chance of life in the galaxy is one percent or less according to scientists. This figure may actually be much less, but we will use one percent. To some of you, 1% may seem quite high considering the tremendous amount of stars in the galaxy we inhabit. Remember 1% applies only for life, it does not specify the percentage of this number which contain intelligent life as we know it, nor the percentage who have achieved starflight. Who can say at this stage of development just what that figure is?

If you use a scenario where races have moved into the cluster, you can justify having a very high number of alien civilizations. Not all of them need be advanced either. Crash landings, internal conflicts, hostile environment may have set them back on the evolutionary or technological scales. Again, there is variety. And by using your own imagination, you create the things you would like to see in the game.

For your own sake, limit the number of alien civilizations in the game. Not all alien races are necessarily going to be friendly when you contact them. Four planets divided by 54 total planets, times 100 for percent, gives you a little over 7% of the planets in the cluster having life, native or migratorial. To be exact for the Detail-Desire Clan, with myself as a reluctant member, the number is 7.407%. This is much higher than the 1% figure quoted before. Fortunately, we are saved by the power of words. The game's believability is not harmed because of the necessity of putting one inhabited planet in each star class to give players a significant picture of environmental contrasts and movement realities. (Only one alien race is needed to make a player conduct exploration more cautiously, providing you don't know which Star Type the race is living under. Yet three or four, one in each type, makes him sweat. He knows beyond doubt there may be a race every step along the way. He will now explore all star types, not just one, with caution, and with step by step expansion, no light year journeys to attack another race he really shouldn't know exists.)

Look back to SCs introduction. "A high proportion of G class, sol type, stars." The implication is the cluster (type 1 BO) may be an oddity as far as other galactic clusters are concerned. And, as galactic clusters are part of the galaxy proper, this galactic cluster's high level of habitation may be offset by another galactic cluster somewhere with a low level of habitation, bringing the figure back to 1% or thereabouts.

Some of you may have noticed the absence of an alien race for the B star pile. This was done because the B star type does not contain a Terran world where population could grow.

In the current planet system, winning is governed by who controls the most habitable planets for his civilization to expand to. Some intelligent life forms may have environments too harsh for men to survive in. As special points must be created to award the discoverer of an

alien lifeform, special technological advances might be obtained from studying them closely. Blue stars have little to offer in the way of hospitable worlds on which humans could study aliens without being directly exposed to their environment. The absence of a Blue Star Alien type is for convenience. Aliens living under a blue star could not be studied without high cost in loss of population growth by placing a human colony on a MT world world or a sufficient number on a ST world to get minimal growth. Green stars, yellow stars, red stars, orange stars, all have Terran worlds, even if they are rare as in the case of Red and Orange Stars. In other words, you could justify the creation of a Terran world in an alien system under one of these stars by saying Terran worlds are possible here. You could not under a blue star. Recall too, four alien civilizations combined with the other player/races will make play realistic. Don't over do it. Inclusion of a blue star type does make contact more tricky.

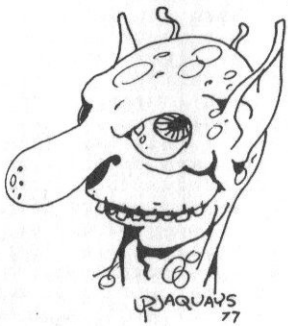
Once all the details of constructing your alien racial types have been attended to, have a non-partial bystander (or whoever happens to be handy) mix these cards in with the regular card stacks and shuffle the pile. Then proceed with play in the normal manner. Alas, when the lucky explorer chances upon an alien civilization, he cautiously takes up the dice or picks a chit to determine what action the alien civilization will take toward your discovery of its existance. You may gain total control over the alien planet, its fleets and production. Or it may trace your path and attack the star system you just left.

A more efficient matrix-determination system can be found in the tables of STARPROBE for those of you that have it. By making up tables similar to these (using them only as general guidelines) adding or subtracting traits as you will, it is possible to accurately represent the likelihood of getting any exploration result you would like to create.

The second method of alien race control is through the use of a moderator to control all unknown quantities of the game. Instead of making up certain star cards that would, when drawn tell of an inhabited planet; the moderator automatically designates by a random method certain stars as having life. The burden of finding these systems then falls upon the players. The moderator may spice up the game by placing clues to the whereabouts of an alien race in the other star systems, or, place clues that will tell something about the alien culture. Discoveries, well, those are up to players and their wishes. They do add spice to the game.

When a player finds an alien system, the moderator will tell him of the results, giving the player information relating to the civilization. One small warning, if a moderator is used, players and moderator should consult before the game and decide the details of minor race control by the moderator. When using a moderator, always clarify his powers. Sad things can happen if a moderator goes power happy with a minor races' force. Use of a moderator can make the game more challenging by giving only enemy presences and not number of counters. Or limiting your contact of presences until they are within range of your ships sensors (your movement factor ahead of the ship). If you have a movement factor of 4MA, when your ship ends movement it will be able to sense ships 4 hexes in any direction, no more. You can see the implications. Ships may slip by you and neither knows it!

The use of alien intelligences and moderators can add challenge to STELLAR CONQUEST. It can show you the actual pains and sweat commanders go through.



FEEDBACK/GAME RATINGS

GAME RATINGS

Rate	Game
	Fantasy Role Playing
7.68	Empire of the Petal Throne
7.48	Greyhawk
7.30	Dungeons& Dragons
7.20	Monsters! Monsters!
6.76	Eldritch Wizardry
6.38	Gods, Demi-Gods, & Heroes
6.10	Blackmoor
5.82	Tunnel & Trolls
5.40	Citadel
5.35	Royal Armies of Hyborean Age
5.17*	Bunnies & Burrows
5.10	Chainmail
	Fantasy Board Games
7.10	White Bear/Red Moon
6.75	Sorceror
6.45	War of Wizards
5.60	Dungeon!
5.40	Seige of Minas Tirith
5.00*	Lankhmar
4.27	Battle of Helms Deep
3.97	Battle of Five Armies
	Planetary Tactical
7.25*	Ogre
6.93	Starguard
6.63	Starship Troopers
6.04	Star Soldier
	Future Society Level
7.93	Stellar Conquest
7.82*	Godsfire
7.07	Outreach
5.94	Starlord
5.59	Star Probe
	Space Tactical Level
7.00	Star Force
6.75	Triplanetary
6.50	The Ythri

Space Role Playing
No SRP had enough votesto recieve ratings. This is probably due to the newness of these games or maybe there just isn't a very good one out yet.

The asterisk(*) indicates that too few ratings were recieved to allow a stable score, but those recieved indicate the scores given Godsfire and Ogre indicate high scores to come. After more people try them we expect to see them way above games in their class.

Rate	Article
7.84	Notes on the Ogre
5.49	Bored Board
5.73	Weekend Warrior
6.00	Iago's Vow
6.47	Outreach:review
5.92	Gods,Demi-Gods, & Heroes
6.68	Buffalo Castle
5.71	Tri-Variant V/2
6.68	TSG #9 art
6.98	TSG #9 overall

Notes on the Ogre was very popular. This type of game introduction/story/speculation was new and since it was so popular we hope to use it again with some of our other new games. Readers seemed to think TSG is improving steadily, and this pleases us. We hope to bring the readers what they want! Because we have dropped the Feedback from this issue, we hope to get more letters(pro &con)from you the readers.

We were very glad to recieve all the comments that we got on the blank spaces provided on the sheet and will probably include some of these in a future issue. Some sheets don't come in till after we have gone to press and for more complete response, we wait.

NEWS & PLUGS

Going-out-of Business Department:

JP Publications is leaving the gaming business and is interested in selling the copyrights to their three games. Bids on the copyrights and licenses are invited. 1 May 1977 is the closing date for bids on the following semi-complete games: MP 44 (squad level WWII), Zeppelin (WWI air game), Gorlice-Tarnon (WWI East Frt), Convoy PQ 17, GOETTERDAEMMERUNG, Rigelian Wars, and Battle of the Reichsfortress. For more info: JP Publications, P.O. Box 3565, Amarillo, Tx. 79106, Phone: (806)372-8861.

WB & RM Goes On Department:

Wyrm's Footnotes #2, the WB & RM zine, has just been issued. This 46 page mimeo illuminates the basic WB & RM game with a generous portion of rules, letters, CRT's, new characters (w/counters), art and various data. It is available from the Chaosium, P.O.Box 6302, Albany, CA 94706, for $1.50 or 5 issue sub for $5.00.

The Continuing Story of the Sillmarillion and other unpublished works of the late Prof. J. R. R. Tolkien Department:

The following is condensed from the text of Houghton Mifflin press release..."Tolkien's The Sillmarillion has been completed and will be published in the U.S. by Houghton Mifflin Co. in late 1977. Tolkien's work on this narrative continued through his long life with the earliest version dating back to 1917. The Sillmarillion will contain not only "The Sillmarillion" proper,but also "The Ainulindale Valaquenta", which preceded "The Sillmarillion" and which consists of legends and tales of the creation and earliest days of Middle Earth."The Akallabeth" which continues the history through the Second Age and "Of the Rings of Power and the Third Age" covers events to the end of the Third Age." TSG recommends you start saving your pennies for this one. It will probably be very expensive.

NEW GAME DEPARTMENT:

SWORDPLAY by Tom Cleaver(?!?) is a game of strategy and tactics in the conflict of individual warrior's using sword's, shields, and armor. Simultaneous action that is neither board nor miniature, but a new concept in sword fighting without blood or pain. Included are flow charts, dice, sheilds, status sheet, and some small swords. It all comes in a nice little package with plastic bag. Order from: Thomas G. Cleaver, 6805 Carolyn Road, Louisville, KY 40214 for $5.

New Fanzine Department:

The IMPERIUM will be a new, monthly zine featuring PBM games of GODSFIRE, STELLAR CONQUEST, OUTREACH and most other "quality" SF games. Also articles, reviews and variants on SF & F. First issue should be available now. TSG subscribers send a SASE to: The Imperium,Gamemasters, c/o J. Jacobs, P. O. Box 549, Georgetown Ct., 06829.

Hot Rumor Department:

Flying Buffalo has informed us of the rebirth of the "Electronic dice" project. First estimate of price is around $39 (not firm).They are hoping for a summer '77 availability. They also need a name since "electronic dice" seems somewhat dull. Send name ideas and inquiries to Flying Buffalo, Inc.,P.O.Box 1467, Scottsdale, Arizona, 85252, Phone (602)994-9104

Game Convention Department:

The Midwest Military Historical Society will hold a convention in Chicago on July 16th & 17th in the Commons Hall for the Park Ridge Inn. Cost will be $1 per day with no "hidden" fees. Write: Tony Adams, 301 N. Wille St., Mount Prospect, IL 60056. Or, phone 312-255-3512.

The Greater Los Angeles Simulations Convention (GLASC II) will be held at CSU Northridge on June 17th 18th, and 19th. Cost is $3, $2 for pre-registration. For information write Jim Blancher, 19536 Minnehaha St., Northridge, CA 91326.

TACTICON I is a games convention being planned in Houston for April 23rd and 24th. For more information write: Dennis Wolff, 915 Silber Rd. Apt. #329, Houston, TX 77024.

Award Nomination Department:

The 1977 Nebula Award Nominations have been announced by the Science Fiction Writers Assoc. The following novels were nominated and would be on any "must" reading list.

MAN PLUS, Frederick Pohl
WHERE LATE THE SWEET BIRDS SANG, Kate Wilhelm
INFERNO, Larry Niven & Jerry Pournelle
SHADRACH IN THE FURNACE, Robert Silverberg
TRITON, Samuel R. Delany
ISLANDS, Marta Randall

NEW FROM METAGAMING

Now in stock from TSR.

LANKHMAR by Fritz Leiber

Reg. $10, $9 for TSG subs.

This is the game that Fritz Leiber and Harry Fischer developed in the 1930's for their own play of Fafhrd and the Gray Mouser. Major heroes like Mouser and Fafhrd, Pulgh and Movarl defend their areas with special groups of warriors. Weapons and mounts are distributed and boats used for water transport. The map represents Leiber's own conception of the world of Nehwon.

METAMORPHOSIS ALPHA

Reg. $5, $4.50 for TSG subs.

Or, the fantastic role-playing game of science fiction adventures on a lost spaceship. "Each player takes the role of a person, humanoid mutation or creature mutation on a vast, radiation-ridded starship which is our of control in deep space. The players must learn to survive in a world of fantastic mutations and hostile radiation, using only their natural cunning and sophisticated space equipment."

SWORDS & SPELLS

Reg. $5, $4.50 for TSG subs.

This is not a Dungeons & Dragons supplement. But, it is a set of "fantastic miniatures rules for large-scale battles, designed especially for use with Dungeons & Dragons."

Authored by Gary Gygax this is another of those valued and cherished booklets that D&D buffs are sure to want.

WARCON III REPORT

by

Robert Taylor

Metagaming Concepts attended the third annual WarCon at Texas A&M University, January 28-30. Representing MGC were Howard Thompson, Steve Jackson, and Robert Taylor, who narrates this report.

This was my first gaming convention, and while I'm a veteran of several science fiction conventions, I didn't really know what to expect at WarCon.

What I found was an extremely well run con. Keith Gross and the other members of the WarCon committee did an excellent job both in programming and handling the tournaments.

Shortly after registration, Steve and Howard demonstrated OGRE, which proved to be quite popular. After the OGRE demonstration, Steve and I played in the STELLAR CONQUEST tournament. Neither of us placed in the finals, but both of us thoroughly enjoyed ourselves and the games we played. I would like to thank Ron Gazaway for his very competent officiating as the SC referee. Also. I would like to thank my worthy opponents, Edmund Hack, David Baaske, and Mr. Brogden for a great game, and of course, congratulations to Shayne Gad, who won the SC tournament.

After my defeat at the SC tournament, I watched the THIRD REICH and KINGMAKER tournaments, both of which were well attended. Only one round of THIRD REICH was played due to the game's length. The players were particularly bloodthirsty, and as usual the Italian player was squeezed out early. The winner of the tournament was to be the player who achieved the highest level of victory on any board. Unfortunately the results of the tournament were inconclusive, and no overall winner was announced.

KINGMAKER was played in multiple rounds. Frank Matlock took the lead in the 2nd round, and he never relinquished it. In fact, by the end of the 3rd and final round he had a commanding point total of 310. The battle for 2nd place was tight and fierce. With some brilliant 3rd round play, Herman Groover took 2nd place with 238 points. He was followed by Susan Tanner in 3rd place with 233 points, and Aaron Smith in 4th place with 232 points.

PANZER LEADER was also well attended. Multiple round eliminations were used to determine a winner. That winner was Dan Kagan, an exceptional player. His grasp of tactics is first-rate, and Dan plays with the flair of a Patton or a Rommel.

Saturday we began the OGRE tournament with 36 players. This was the largest number of players for any one tournament. OGRE was well received by the players. Everyone enjoyed its quick play and fast-moving action. Howard, Steve and I saw almost every strategy imaginable on both offense and defense. As gamers often do, the OGRE players were quickly caught up in the spirit of the game. "Kill, crush, maim, destroy," cried one player as he urged his Ogre into battle. I asked this particular player if he liked the CRT. "Oh, yes," he replied, "It's nice and bloody!" I nodded and noticed that this player's opponent was a little desperate. He was contemplating throwing some raw meat at the Ogre, and hoping that would slow it down. It's an interesting strategy, but it seldom works. After two days of tough competition, Vernon Unger won the tournament, and Ed Tatum took 2nd place.

To me the most interesting part of the convention was the seminar held Saturday night. But seminar is too elaborate a word for what actually occurred. It was more of a free-flowing rap session. At any rate, it proved to be quite enlightening about what gamers want and expect from game companies.

Gamers will gladly pay an extra dollar or two for quality. This quality is defined in terms of durable and colorful counters, a decent board (THE EMPIRE OF THE PETAL THRONE plastic map drew high praise), and rules that don't require an interpreter to understand.

I was impressed by the knowledge and expertise of the audience. They had a firm grasp of the problems, both design and production, that can occur during the development of a new game. Using OGRE as an example, Steve explained how a game grows from an idea to reality. The feedback from the audience was very favorable, and again demonstrated the gamers familiarity with game design techniques.

The concept of computer play-by mail games received a lukewarm reception. In general, most gamers are wary of computer games. They are definitely interested, but would probably wait till a friend tries it before they would spend any money. Gaining the confidence of gamers will be one of the major factors in developing the play-by-mail computer games MGC is considering.

After the seminar/rap session, Howard, Steve, and I joined a DUN-

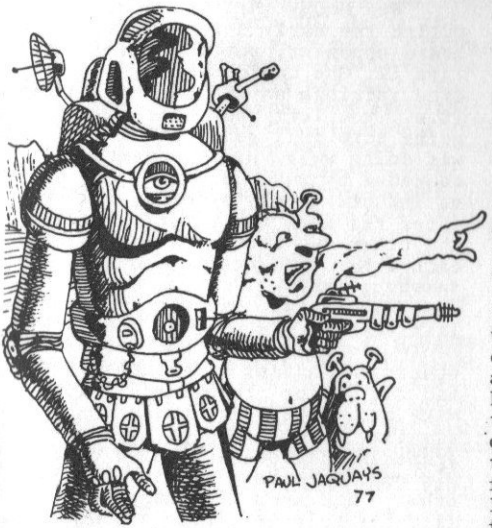
GEONS AND DRAGONS expedition. The D&D tournament was handled by David Brummel and his crew of Dungeons Masters. Simply stated they did a fantastic job. The attention to detail, the elaborateness of the quest, and the subtlety of the traps and tricks gave this tournament a very rich texture.

Each expedition had a quest to perform (the retrieval of a magical item held by an evil 12th level wizard) and each expedition was equally equipped and outfitted. Aiding us in our quest was Henry Schaffer and Ed Snell. Our DM was Wayne Pickett, and he was superb.

While we were able to get our hands on the magical item, we were unable to get it or ourselves out of the dungeon. In fact, all of us ended up frozen and stuffed in a bag of holding, but we had a great time and again my compliments to David Brummel and his Dungeon Masters for a terrific tournament. The team of Ed Hack, Pat McLaughlin, Randy King, Mark Babik and Don Holson won the tournament.

By Sunday afternoon I was pretty exhausted, but quite pleased with the convention. Gamers are a fine bunch of people especially the 180 I met at WarCon. They're intelligent, articulate, and always interesting.

And now with my first gaming con under my belt, I'm, of course, looking forward to the next one, and WarCon IV in particular.



STELLAR CONQUEST TOURNAMENT GAMES AT WARCON III - A REVIEW

by

Shayne Gad

Four of our circle of gamers went to Warcon III at Texas A & M this year. Three of us entered the SC tourney. Managing to engineer it so we were each in separate, first round games, it came to pass that we all three made the finals. Considering this and the course of play of the final game, I believe a short review of tactics and what we did to prepare for the tournament is in order.

As we had played only variants of the game for a year, we played a series of "regulation" games over a period of three weeks before the convention. These games lead to the development of five major sets of operational techniques. In short these were:

I. The Population Shuttle - Setting up a pair of (preferably TR, but an ST will do in a tight spot) population building colonies within 8 hexes of each other. Every fourth year, after population growth, each ships its population increase (and enough of its own population to get an optimum emigration bonus) plus bonus emigrants to the other. As more TR planets become available, they are added to this network.

II. Grapevine (and Special Case Starburst) - This one was often overlooked by our opponents at the convention. It is based on the victory conditions for the game. Most points - and you get 3 for a TR (a colony or military control) and 1 for an ST. Even if militarily beaten, one can still win the game if you've spread a network or grapevine of small colonies on available TR and ST planets. Four is a good number for such colonies (5 for a TR to also pick up population growth) - it enables them to build missile bases later to protect themselves.

A variant on "grapevine" is the "Starburst". In this, one builds numerous escorts at a number of dispersed points, distinguishing them as task force counters. They are stock piled until turn 36. On turn 37, replace the task force counters with the appropriate stocks of escorts. These are fanned out over all available STs and TRs. The trick here, as with the grapevine, is that the little beggars are hard to dig out fast enough. (The grapevine has the advantage that the other guys first have to find your colonies.)

III. General Motors Game - Until forced to do otherwise, all industry not involved in supporting the pop-

ulation shuttle program and a steady slow grapevine program should be building more industry. Preferably find a useable NM planet early (STs and MTs are best but a BR will do in a pinch) and get it going like Detroit in the springtime. A point some people miss - if you must spend build points, do it from non-NM planets. Until turn 24 or later, NM planets should build more industry.

IV. Crispy Critter - Actually a collection of dirty tricks aimed at turning your opponents into burnt beings (and loosely on the view if you can't raise the bridge - your point level, lower the river - his point total). These tricks are also an example of what I believe to be the first corollary of successful wargaming - make the other fellow do the reacting. When possible, especially early in the game, send your raiding forces to visit your neighbor. If it kicks him into building ships and defense early, he loses tempo (and inudstrial potential).

A good start is to use 24 of your 25 initial bonus industrial points to build an escort squadron. It makes a nice extortion tool. A real sneaky which is good once on any new opponent is to combine these with your original four escorts and a few CTs into a task force counter. Move it upside down, star to star, towards your nearest opponent (the "near board side man") dropping 1 pop 1 IU colonies as you go. Close observation will show where his main colony is (most usually the G class star nearest his start hex). You should arrive over it on turn 12 - before his third build. Unless he is suspicious he has 4 excorts on the board. Result: he is out of the game and you are well along the way to winning.

Another cutey comes into play when you find a TR, ST-NM or MT-NM where you can't hold it. Run in a single CT and escort. Land the population, then use your escort to burn it. You have just destroyed a valuable resource of your opponents.

V. Don't be a Hermit - After citing these good principles, I am about to describe a series of games where the winners, at some point or another, violate all of them. This is due to an appreciation of the second major corollary of war gaming - one must tailor his overall strategy to account for the actions of his opponents and for the dictates of chance. Especially in a game like SC, deception is a major asset.

The tournament was played with some rules, modifications, and clarifications that were announced to us prior to beginning play. These were, in a nutshell:

-provision for building SMBs, essentially grounded dreadnaughts,
-separation of improving defenses as opposed to improving ships weapons (i.e., ISW only doubled ships weapons; Improved Defense was necessary to upgrade missile bases),
-adjusting the cost of PFS upward to make it unattainable,
-removing the two ST-NM cards from the deck (does wonders - try it),
-starting the players with normal forces but instead of entering with 35 CTs, everyone started on a G class TR 60 planet with 35 million people. Starting stars were Scorpii, Bootis, Ceti, and Canis.

Ron Gazaway, who moderated the tourney, did an excellent job. His checking of sheets after games must have been a very tedious task. The major clarifications he made to game rules were:

-growing coming before building, meaning that every fourth turn the industry that had just come with your population growth could build CTs for itself,
-ships entering a system received all relevant data (planet data, colony size, defense, etc.). This made escorts a very good investment.

The four first round games immediately showed the diversity of playing styles. The three of us who had come down from Austin started at 2 MA and spent our bonus on ecorts and 1 point toward IIT. Everyone else on those three boards bought 3 MA off the top. Not necessarily a bad idea, but I never saw it used for more than allowing scouts to see more, and the data thus gained was never used.

Wes McCoy (Mr. Crispy Critter) pulled the early sneaky on his near board opponent, putting him out by turn 12. One could hear his "You dare infringe on the Empire" routine (i.e., you left your home planet) going into full gear, which meant he was doing well. His opponents all conceded by turn 24 - they had built no industry, only escorts, and even after Wes took the first one out, the other two continued to waste each other. And Wesley's DNs were smashing through.

Mike Baaske was not sure to the last that he had won. No one at his table was eliminated and two of the others had masses of escorts. They had not GMd or grapevined, while Mike had. Mike never built a substantial force of ships, but his grapevine did build missile bases. His opponents beat mostly on each other - and when they happened to find his colonies, didn't conquer or farm them until too late.

My own first round game ended on turn 32 when the remaining two opponents conceded. In this game, as in the finals, I started on Bootis and found a 40 MT-NM planet early. I used my early escorts to intimidate my near board neighbor on Scorpii.

My long board opponent on Canis eventually (turn 16-20) psyched me into switching gears. As all combat was fought on a separate player, only after clashing with him did I discover that the fist full of ships he kept taking with him to the battle table had nothing to do with the battle or his forces. Seeing these, I felt I had to act earlier than I did. As it turned out, the only tactic any of my first round opponents used was the population shuttle. They all ignored industry and MT-NM planets. My only sneaky was hanging it out early by not building missile bases or putting "garrison" forces on stars after the first 8 turns. My opponents assumed I had many MBs and AMBs and never tested me, allowing me to put substantially more into industry early in the game than I usually can. This was added by another cute trick - the use of a "duster". An attack squadron or DN was kept in my home area. As an enemy scout (or escort) penetrated and committed itself to an outer star, my duster eliminated it. As a result, my inner colonies were never scouted. Another cute move I used was to trip-wire defense. I parked a few ships over an empty, unusable star on the border with an opponent. When he did go to raid, he hit this empty star allowing the real colonies time to react.

I eliminated/conquered the Canis Empire by turn 20. Using the captured industry as a base, I then went for Scorpii while slowly edging towards Ceti. Scorpii had built no industry - just ships. His escorts crumbled before my DNs. Everyone conceded to my 38 points then.

The finals were played Sunday morning. Wesley McCoy dropped out (and therefore finished fourth) to play in the WSIM finals. His place was taken by the second place player from my first round game - Scorpii who again drew Scorpii to start. My strategy was guided by two facts - there turned out to be no TR planets (beyond my home star) in my quadrant and Tauri turned out to be a 40 MT-NM. Turn 4 I moved 12 CTs off Bootis for Tauri and kept doing so. By 5 I discovered that I had no TRs. When Schedar turned out to be a TR, I committed my reaction force to do it. I captured it but was unable to hold. When I lost my first attack ship trying to retake it (my only attack at the time) on turn 20, I had 69 industry (and therefore 138 "points") on Tauri available for building. As the Ceti player seemed to be stringing grapevines like crazy, I used 115 points (I had about 180 available that turn) to buy DN technology and build one DN. (The other 65+ built 16 more industry on Tauri and finished paying off AIT.) This DN then waded into Schedar and spent the rest of the game inforcing tranquility on Canis.

Next build turn Tauri and Bootis turned out a DN SQD and bought me 4MA (until now, Canis and I had been plodding along at 2MA). On turn 28 these appeared over Hamal, which as expected turned out to be an MT40NM with 20 pop and 40 IU on it. I lost one DN in defeating Scorpii's defense forces there. During the build I bought ISW - suspecting I could not hold Hamal, and knowing that I moved first. On my turn 29 my remaining two DNs burned off Hamal. Scorpii then waded in and wiped them (at this point my rolling was indecently bad). But the result was Scorpii had been effectively removed from the game.

Meanwhile, Ceti had been putting everything into DNs and movement. As a result, when we simultaneously went for each other, he won the initial battles over Craconis and Capella. It also dictated that there was a lot of burning off of colonies - I lost 5, and at least 20 total were destroyed. My losses, except for Draconis (a 10 pop/10 IU planet), were undeveloped grapes (i.e., 1/1's). But in the end industrial base told. (On turn 36 Ceti rebuilt 2 DNs and he never got around to MBs. I bought 8MA, USR, and rebuilt essentially all my DN and DN SQD counters.) On his turn 40 (he moved before me) his last squadron lost the battle of Alcor. I did not move my turn 40 - everyone else conceding to my 28 points (plus the 8 I would pick up for sure in occupying Ceti, etc. which were not defended). Mike Baaske finished second with 8 points. Scorpii, not technically in the game, had 5 points. Ceti would have had 0 points.Neither Scorpii nor Ceti had grapevined, or played GM, which proved to be fatal errors.

The winners made errors too, but fewer of them.

BOOKS

NAKED TO THE STARS by Gordon R. Dickson, DAW, $1.50

THE MERCENARY by Jerry Pournelle, Pocket Books, $1.75

SHADRACH IN THE FURNACE by Robert Silverberg, Bobbs-Merrill $8.95.

Gordon R. Dickson is one of the current writers experiencing a rebirth in paperback. The eight, from DAW Books, is Naked to the Stars . Naked..., written in 1961, is a "Star Soldier" novel. Though not as tactical as The Forever War or Starship Troopers, it does portray interstellar warfare on a single soldier level.

Cal Truant, the novel's hero, is a warrior turned peacemaker. His efforts to bring about a bloodless peace with humanoid aliens comprise the major part of the story.

But Naked to the Stars is not really a novel. The plot is based upon a single incident, and the central question raised (How should we act upon contact with extraterrestials?) is never really answered. The comparison on the cover with The Forever War is a disservice to Joe Haldeman's fine novel.

Naked to the Stars will not put you to sleep, but then again if you want to learn or be enlightened look elsewhere.

In 1971 Jerry Pournelle began a series of stories in Analog that have finally seen book publication as The Mercenary. The preface page describes the story as one from a future history in which The Mote in God's Eye takes place. There is a nice map of New Washington (the planet on which half of the novel takes place) a chronology covering 1969 to the book's beginning.

The story tells of J.D. Falkenberg, soldier and superior tactician of the combined U.S./U.S.S.R. interstellar government. Falkenberg, expelled from the service for political reasons, trains a mercenary army of incredible abilities. Against all odds his force fights oppressive bad guys and helps to restory an uneasy peace on a war torn planet. Sound familiar? It is. But familiar or not, it is excellent reading. The stadium riot scene could easily be a fictional description for the cover of GODSFIRE. For that matter, the entire book echos the polical/social/waring structure of GODSFIRE. I can't find any reason for a TSG reader to not enjoy The Mercenary, unless he hear it when published in Analog. Even then, the six year buffer adds much to the relevancy of this fast paced, adventure novel. Highly recommended.

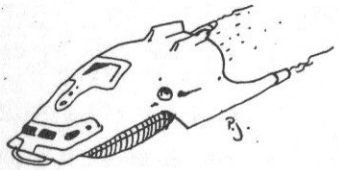
Shadrach in the Furnace is supposedly Robert Silverberg's last novel. I hope not. If indeed he doesn't write anymore, we, the readers of science fiction, will lose a great writer. Shadrach in the Furnace may be the best Robert Silverberg novel ever. I confess that in the last few years I have not cared for Silverberg's stories, but Shadrach.. has made me turn 180 degrees. His sensitivity to character and description are in full force here. The novel's structure reinforces the story's central theme: "Redundancy is the main avenue of survival."

The year is 2012 and Dr. Shadrach Mordecai, personal physician to Genghis II Mao IV Khan - world director, has learned a terrible secret. Genghis Mao is planning to purge Shadrach from his body so that he may move - body and soul - in. Shadrach must stop him. But how does one stop the most powerful man in all history? I will leave the answer for you to find out.

Shadrach in the Furnace has been nominated for the Nebula award. I imagine it will also receive a Hugo nomination. Any praise or award given to this book is well founded. Highly recommended.

C. Ben Ostrander

REVIEWS



METAMORPHOSIS ALPHA: A REVIEW

by
Robert R. Taylor

METAMORPHOSIS ALPHA is a role-playing game from the designers of DUNGEONS & DRAGONS. Unlike D&D, METAMORPHOSIS ALPHA is played against a science fiction background.

This background is the colony spaceship called Warden, a giant, multilevel starship (a la Heinlein's Universe, Clarke's Rama, Panshin's Ship, and Ellison's The Starlost). En route to its destination, the Warden encountered a cloud of space radiation which killed the crew and most of the colonists. The radiation also mutated the plants and animals aboard the Warden along with a number of the surviving humans. After several generations all knowledge about the ship and its purpose was lost, and the survivors fell into a state of tribal barbarism.

It is in this setting which the players begin the game. They pick a character (human, humanoid mutation, or creature mutation) and learn to live in an environment of hostile mutations and dangerous radiation. All this while they explore the ship in search of technological equipment that will aid them in their struggle to survive.

Okay, that's the background and setting of the game. How well does it play? Damn well. James Ward, the designer, is to be commended for doing a splendid job.

First, (and very important) all the rules are in one book. Hallelujah. The rules are printed neatly and in a readable manner. They are laid out with the player in mind; you don't find a chart or a table starting at the bottom of one page, then continued on the next. There is no constant flipping back and forth by the game master. In MA all the charts and tables are complete on their individual pages. It's a small thing, but when someone lays out a game to help the play go smoother, masters and players alike, benefit.

The rules are logical, simple, and straight-forward. Each section of rules is well-outlined and usually followed by a detailed example of play.

The system of play is of course similar to D&D, but there are a number of differences. For instance, there are only three player-characters that can be assumed, but the mutation factor allows for these characters to be widely varied. Magic has been replaced by technology. There are various items of equipment differing in methods of function and operation. Of course, such items are quite foreign to the characters, and there's an interesting table which describes the ability of a character to learn how to operate a specific piece of hardware. However, there's always the danger that the character might blow his head off during the learning process. Robots are also included in the game, and they make for many interesting aspects of play as does the weapons and combat system. This system presents several opportunities for different styles of battle such as character armed with a laser gun pitted against a swordsman.

Overall, the facets of MA's make-up are superb. The game is definitely first rate and quite excellent. MA is highly recommended to someone interested in buying their first role-playing game since the rules are rich with guidelines to help the player in constructing his own ship.

This reviewer has a few objections to certain rules, but these objections are minor. MA's only major defect is a god-awful cover.

Metamorphosis Alpha is available for $5 from TSR Hobbies, Inc., POB 756, Lake Geneva, WI 53147, or from Metagaming.

EAT YOUR HEART OUT, HUGH HEFNER

a review of Bunnies and Burrows

by Steve Jackson

(Bunnies and Burrows, designed by B. Dennis Sustare and Scott Robinson. Available from Fantasy Games Unlimited, Inc.; $6.00.

No! No! Yaaaahhh! I just can't take it...

Ever had a high-level D & D character, down in a dungeon someplace, pick up a book? He opens the cover and - zap. Well, it just happened again. Our leader took the thing out of his pack, glanced at the front, and began giggling uncontrollably. The next character picked it up, groaned once, and just sat there staring into space. I had to look. Zap.

And this wasn't in any dungeon, either. This was in my living room. Howard had just brought over the review copy of Bunnies & Burrows.

What this is, if the title doesn't clue you in, is a role-playing game built around the universe of Watership Down. There are these rabbits, see, and they each have a name, and eight attributes, and a profession or two, and they go on adventures, fight, breed (a lot) and all kinds of stuff. All over the place.

The authors are professional zoologists as well as gamers, and it shows. The natural hazards facing their cottontails are as carefully worked out (and, in context, just as fearsome) as those of Tekumel or The Pits. Through the "professions," they also sketch the social life of the rabbit civilization.

Appendices include gambling (the medium of exchange is food, naturally - and consider the problem of setting up a gambling - or accounting - system for creatures that can't count higher than four) and miniatures (Grenadier is evidently going into the lead rabbit business).

The authors could have gone really wild, if they'd wanted to, and made B & B a complete parody of the FRP style. They didn't, though. Once you accept the original premise - and, after all, are talking rabbits any harder to swallow than Balrogs?[1] The rules are worked out in adequate detail. There is a complicated combat system adapted to rabbits; (you can bite, claw, kick, cuff, etc.), a long list of herbs (which take the place of magic), a detailed section on reproduction, and much more.

As in most FRP games, a lot is left to the gamesmaster. Although many weapons (including a ballista) are pictured, only rules for bare-pawed[2] combat are given. Advancement in character levels is largely up to the GM's discretion. On the whole, though, the rules provide enough to let a GM operate without undue skull sweat.

The game booklet's art is a nice touch; it livens up the pages, and gives you something to giggle at, in between the rules. Charles Loving's illustrations look as though he did them with a pencil taped to his nose. The sketches and captions (for some reason, all the captions are in the front of the book, instead of with the pictures) account for most of the game's silly flavor. Some examples: "A runner just discovering that the slumberleaf he bought from a wandering herbalist is really poisonweed; A typically spaced-out seer; An owl looking for a tasty rabbit to eat (or maybe a maverick cleverly disguised as an owl."

On the whole, B & B is probably worth the retail price of $6, at least to a FRP fan. The writing style is intelligent, lucid, and occasionally witty; the rules are workable (and might provide GMs who'd never touch rabbits with some good ideas); the art, as I think I pointed out, is so bad it's great; and the whole idea is appealing.

1 - Actually, they're easier, unless you have a very big mouth.

2 - As opposed to bear-pawed.

DUEL
by
Stephen V. Cole

Major Kahelski tried, for the twentieth time so far that day, to scratch himself. He had been, with his Battalion, nine days in the iron so far this trip. Perhaps they would be relieved today? He fervently hoped so. The biofunctions system of his armor had failed the night before and his legs were already caked in his own filth. They had better be relieved today.

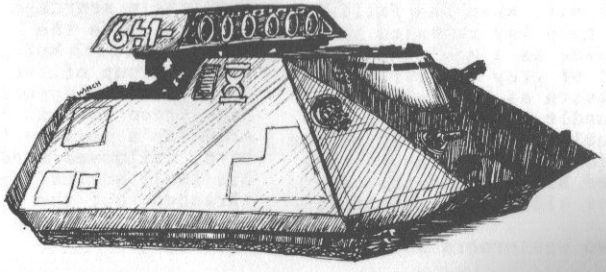
He heard a distant rumble, and the very ground under him began to shake. Within seconds he was thrown off of his feet, scrambling wildly to reach the nuclear-tipped missile at the other end of his foxhole. Then the minor eathquake came to an abrupt halt. Kahelski leapt to his feet, and a half dozen of the nearer men in his battalion also appear from their holes. The OGRE gleamed in the sun, sitting warily just over a mile away. He lowered the missile to his waist. It was one of their own.

"Damned OGRES," he muttered to himself. Then, switching on the communicator with a click of his teeth, he spoke to the men of the 214th Battalion. "He's one or ours. Get back in your holes and go back to sleep." He tried to talk to Brigade, but the circuits were still dead. In all probability, so was the Brigadier. He wanted to know just what an OGRE was doing in his zone. Wherever OGREs went, there was trouble for the poor bloody infantry.

Abruptly the ground began to shake again, though not quite so badly as before. Flicking the lenses on his helmet to a longer range, the Major could see a dust cloud to the south. He did not have to see the OGRE to know what was causing it. Only the Multi-thousand ton monsters, moving at 50 Kliks, could kick up that much dust. From the direction of it's approach, he guessed that it would be one of their OGRES. Then, to his horror, the Ogre stopped abruptly and turned to face him from about four miles.

"Shit," he swore under his breath. Looking to his right he saw the "friendly" OGRE turning to face the "enemy" one. Before he could speak, both fired their missiles in ripple salvoes. Diving to the bottom of his hole he felt tons of earth coming down on him as nuclear missiles rained down all around the nearer machine. He began to honestly hope it would be wiped out in that one volley, for a duel between two Ogres was not a safe place for the infantry. Digging himself out of the collapsed position, he checked with his company commanders. Two were dead, their sergeants reporting in their stead. The third was shaken but his voice steadied noticeably as he spoke. One of the companies was hit very hard, and the Major knew he would have to do without it in future.

The two OGREs now charged each other straight on, firing all their weapons on the run. The "enemy" OGRE was apparently not a good shot, and most of his shells were falling among the 214th. In the dust, he could see the two machines stop about a mile apart and fire heavily and directly into each other. The filters on his view lenses clicked into position to screen out most of the flash from the nukes. Somewhere in the maelstrom of nuclear explosions the two OGRES ran into each other head on at top speed and the power piles of both cracked and blew. An hour later it had settled down. What was left of the two cyper-tanks, a twisted mass of BPC armor, could be seen at the bottom of a shallow crater. By that time Kahelski had reorganized his battalion. Out of two hundred odd men, about ninety were dead, Most of B company was gone, he would have to make do with the other two. "Damned OGRES," he swore under his breath. Perhaps tomorrow they would be relieved.



THE DUST FROM BIAINAS

by G. Arthur Rahman

"See, Mushegh," said one of the Armenian brigands, "a cave opening! The tracks of the foreign devils end here!" He thrust his bearded face into the mouth of the cavity and two well-aimed cobbles smashed into his brow.

The bandit's comrades pulled him by the legs to safety and jabbed their swords through the opening savagely. But the two young men, pressing back against the rubble, remained out of reach. The Armenians broke off their attack and the cave fell silent.

"Do you think they will go away, Bingor?" whispered Donaldbain to his companion.

"Nay, my friend. Such greedy curs as these will camp outside until we are starved. To think I endured a winter in Armenia merely to die in the spring! Surely God is unkind." He hung his head in his hands.

"I for one deserve to die--for letting a man as ill-starred as Bingor lure me on with vain promises of patronage! I, a poet, attached to a mean trickster!" grumbled Donaldbain.

"You in there!" barked a gutteral voice in Armenian. "Give us the treasure map or we'll smoke you!" Already a curl of black smoke was drifting through the entrance.

"Don't!" shouted back Bingor in the same language. "We're coming!"

The Gael caught his companion's thin arm. "We can't! They'll never be fooled by that silly map you drew to gull the simple-minded Strategos of Colonea."

Bingor attacked the rubble behind him without answering, unwedging the heavy stones and casting them on the floor. The passage went farther back, if only they had time to clear the debris which shut them off from it. Donaldbain hurried to help him with his own desperate strength. Suddenly rocks began to break loose from the ceiling, and the men dove to either side to avoid being hit. When the falling stopped, a hole lay revealed in the talus, as wide as a man's shoulders.

A puff of grey smoke filled the tiny cavern as the bandits hurled a bundle of burning faggots inside. Donalbain seized two of the largest sticks to serve as torches and followed Bingor into the cave on the other side of the obstructing talus.

The two westerners found they could stand up. Their dim torches cast heavy shadows over the angles and turns of the cavern. Plainly it was no natural tunnel, but a system of cut passageways branching off in numerous directions. It's shear granite walls evidenced the work of an ancient mason of great skill.

But, before the young men could decide which passage to take, the sound of hands clawing upon rock and angry Armenian voices echoed from within the small exterior cave.

"By the djinn of Araby!" swore Bingor. "The Armenians are following! May the angels of Hell take their greedy souls!"

Donaldbain dashed down the nearest corridor, putting no more faith in his friend's curses than in his plans for easy riches. Bingor followed close on his heels, but their flight ended in front of a giant bronze door. Impulsively Donaldbain threw his weight against it.

Bingor cried out too late to stop his comrade who was unfamiliar with the nature of bronze doors. The ponderous doors pivoted inward under the Gael's attack with such a horrendous creaking that tears rushed to Bingor's lemuroid eyes and Donaldbain's face drained pale.

A faint glow, growing brighter, and the tramp of rushing boots issued from around the curve of the passage. Near panic, the pair dove into the room and held the bronze doors shut behind them.

"For all the people who laughed at your map, such as they had to believe in it!" panted Donaldbain, putting all his weight against the metal portals. "Why did I ever throw in with you in a scheme so mad?"

"Am I to blame?" shouted Bingor angrily over the battering the hillmen were making upon the bronze barrier. "It was you who wished to enjoy those comforts due a poet. I merely went along with your enthusiasm!"

Ten bandits burst into the room, putting an end to the pair's recriminations. Dodging and darting around the columns and furniture of the subterranean edifice, Bingor and Donaldbain searched frantically for an exit while the brigands raced after them with knives and bludgeons.

A group of the bandits penned Bingor into a corner. The nimble Arab tried to dash between an Armenian's legs to freedom, but hard, calloused hands locked around his small ankles. He screamed and thrashed, but the leader of the thieves stilled him with a kick in the flank.

Two other bandits chased Donaldbain behind a dusty, straight-backed chair. One lurched at him from the side, but the Gael's sharp kick to the groin sent him moaning across the chair seat. The second came on like a berserker, whirling his oak bludgeon around his head and bellowing a war cry. Donaldbain tried to dodge, but the truncheon smashed into his shoulder and knocked him to the floor.

"Now," said the Armenians' leader to the bleary Bingor, held limply between two bandits, "now we will have the map to al-Rashid's treasure. Show it to us or die!"

Fighting to control his trembling, Bingor gasped: "Of course, my friend. I have it here." The thieves released him and he fumbled around inside his robe. "The map will make no sense to you," warned Bingor. "It is written in code which only I can decipher." He withdrew a piece of parchment from his inside pocket. "The treasure," he said blandly, "lies many days journey from here--many. I will take you there."

Donaldbain, laying helpless upon the floor, moaned. He had no hope that Bingor's bluff would buy them a single minute of time. The Arab would not be satisfied until he earned them a death by torture.

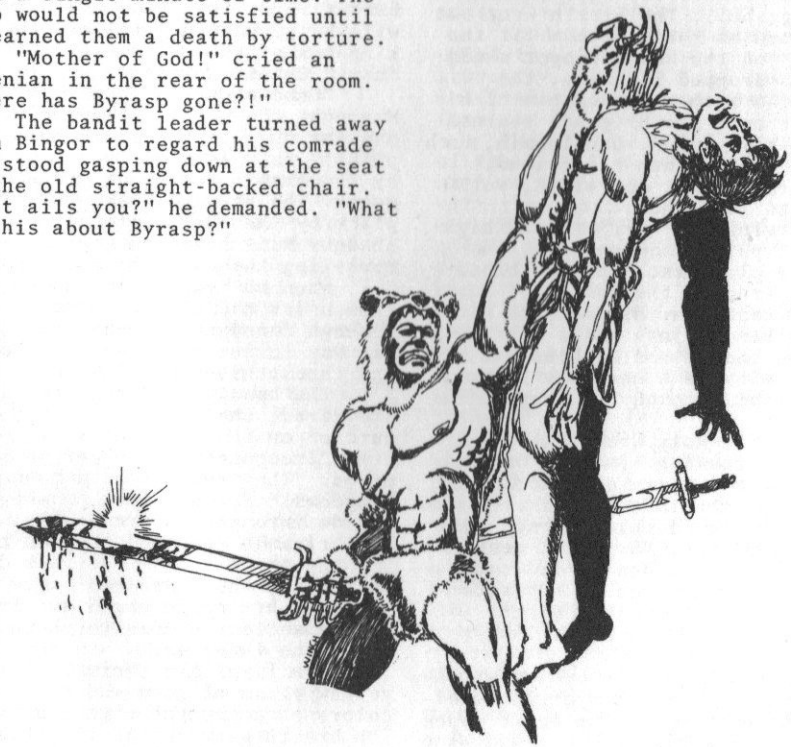
"Mother of God!" cried an Armenian in the rear of the room. "Where has Byrasp gone?!"

The bandit leader turned away from Bingor to regard his comrade who stood gasping down at the seat of the old straight-backed chair. "What ails you?" he demanded. "What is this about Byrasp?"

"I swear he was here but a minute ago, Mushegh. But when I looked again, he was gone--only his clothes were left."

Mushegh walked over to the sagging homespuns slung over the chair seat. Byrasp's dusty boots lay to one side. "Bah!" grunted the Armenian chieftan. "The blow must have driven him out of his mind and he wandered off in a daze." He waved over three of his men. "Go find Byrasp before he loses himself. He is a fool, but he is also the son of my uncle." The Armenians turned from their leader and exited the chamber via a rear door, the only way Byrasp could have gone.

Mushegh went back to the captive Bingor and snatched the crumpled map out of his hands. Greedily he unfolded it and scanned the lines and shapes by torchlight. When his joyous followers impinged upon his shoulder he thrust them away. "You get in the light," he grunted. A gruff muttering arose from the re-



buffed Armenians.

Suddenly, a bloodcurdling shriek of horror echoed into the chamber from the corridors outside, freezing the brigands where they stood. "It's Hayk and the men!" exclaimed Mushegh as he jammed the map into his pocket and dashed out of the room. His followers racing close behind, dragged the reluctant Bingor and Donaldbain with them.

Before the trapezoidal door of another darkened chamber the bandits spied the familiar skins and rags of the lost Hayk. Astonished, the chief picked up the garments with the point of his sword. Heavy cakes of dust tumbled out of them and the odor of ancient mold wafted to the nostrils of the huddled men.

"Only his clothes," muttered one of the Armenians, "just like Byrasp! Hayk was not out of his mind. What happens in these accursed corridors?"

"Silence!" said Mushegh. "We will know when we find Armais and Harma!" Scimatar leading the way, he strode into the nearby chamber. Reluctantly the other bandits and their captives followed.

The light of their torches revealed a room curved like the inside of an eggshell. The breath went out of the men as their brands lit the pictures on the wall. Bingor shuddered and dropped his eyes; the scenes too much reminded him of his own fate once the brigands learned his map as a fraud. Donaldbain, much more sensitive than his friend, stood transfixed, horrified, yet forced to look and study.

Carvings of warriors and high-priests, painted in strange, unfading pigments, depicted blood-sacrifices over the bodies of chained captives. Hierophants plunged long blades into their victims' entrails and raised up bloodstained hands to invoke a horrible heaven. And over all loomed the image of a dragon.

"By the Holy Ghost!" blurted Mushegh, crossing himself. On the floor lay the dusty goatskins and woolens of the last two missing men.

The brigand chief turned furiously to Bingor. "Dog of a westerner, you have hidden confederates--men who slay us when we separate! You'll not live another minute to mock us!" He lifted his scimatar high.

In fright of the coming stroke, the bandit holding Bingor loosened his grip enough for the agile young man to wrench himself free and skip out of the way of Mushegh's descending blow. Before the chieftan could recover his balance, the Arab dashed out the door into the blackness. The infuriated Armenians stomped after him, running so fast their torches were nearly blown out.

The pursuit ended in a blind alley, Bingor nowhere to be seen. Before the bandits could retrace their steps, a high-pitched scream wailed through the maze of passageways. It was a voice Donaldbain knew well--the voice of Bingor the Arab.

The Armenians shuffled off in the direction of the scream and came to a corner of a hall where they stopped dead. Upon the dust-covered floor lay an empty galabia and the boots of the missing Arab.

The Armenians stood speechless for a moment, then Mushegh whispered: "We were wrong. The things that haunt these damnable tunnels are no more of his making than our own. He is slain as terribly as we." The bandit pushed the garments out of the way with his toe, as if they had become something deadly and loathsome.

Donaldbain sunk to his knees before the empty rags. "Woe, Bingor," he sighed, "sunk to this little pile. Never shall I forget you, never! A lay I shall compose, dear friend, that your noble fame will be recounted until all the kingdoms of the world are fallen to dust." Grief choked off his lament.

"Come along, whelp!" rumbled Mushegh. "You will interpret the map for us after we leave this place!" But his words were cut short by the grating of rough stone upon metal. The brigands were held in place by the chains of fear as a shadowy wall began to gape open, revealing the dark chasm beyond.

When no new terror rushed out from under the sliding panel, Mushegh found the courage to inch his way to its darkened threshold and thrust his torch inside.

The bandit leader gasped and staggered; the straggling Armenians lurched on the point of rout.

"Treasure!" the chieftan stammered. "The treasure of a thousand kingdoms!" Wonderstruck, Mushegh strode into the cavernous vault. The brigands scuttled to join him.

By the time the Gael was dragged inside, the Armenians' chief had put down his crude brand and lighted the ancient bronze torch ensconced on the inner wall.

The firelight threw back the yellow gleam of gold and the myriad colors of uncountable gemstones. The breath went out of the thieves when they say it. For an instant the hillmen stood like idols of stone, but then with wild whooping

that drowned out the fears of a moment before, they pounced upon the piles of treasure, the chests and the trunks and the casks and the barrels of plate, jewels and implements of silver.

Looming above the great sprawl of treasure was a gigantic dragon wrought in gold. Diamonds were its eyes and the scales of its sinuous body were cut from sapphire. Donaldbain tore his gaze from the creature, feeling the total evil of it from the pit of his stomach. Now, the treasure seemed to lose its luster and become a thing unclean, cold and clammy under his feet.

"We'll never need steal again!" trumpeted one of the brigands, raining the gems down upon his head like hailstones.

"Praise be to the Lord!" cried Mushegh, falling on his knees, filling his fists with the dragon's foul treasure and lifting it up toward the ceiling, muttering his adoration of God.

Then the portal grated again and slid down from its recess. The brigands turned in fright and leapt toward it too late. Before the first of them could escape it slammed shut and stood oblivious to the frantic pounding of their fists.

Donaldbain, shaking off the spell of the dragon, watched their futile attempts. He moved toward the Armenians to offer his help, preferring a possible death at their hands at a later time to the sure horror of living entombment. But before he could take a second step, a sheet of brown dust fell from the ceiling and coated the heads and shoulders of the men beating against the door. While he looked on the men's flesh wasted away and their outlines withered. In mere seconds they were a mass on the floor, their grey skulls dropping their teeth and their bones deteriorating into dust. A moment after nothing remained but the clothes they had been wearing, empty of anything but dust.

The strange dust that had doomed the Armenians shifted of its own volition, like a million tiny ants. As Donaldbain and Mushegh, the only surviving brigand, watched, an incredible change came over the dust. It began to gain in mass, to swell and to gather. In a trice there was brown dust upon the treasure no longer, but a ragged skeleton, garbed in shreds of rotten cloth, tottered unsteadily before their eyes. The thing lifted its naked, grinning face and returned their stare with its own empty black sockets.

The Armenian, spurred more by terror than courage, shouted a mountaineer's war cry and rushed the apparition swinging his scimatar. But the thing's arm shot out with demonic speed and caught his sword arm by the wrist. Mushegh petrified in its moldy grasp and, his black beard bleaching white, his skin dry and puckering, the brigand fell, his bones breaking to powder upon the chalices and jewelry that littered the floor.

With the dying of the last brigand another change came over the specter. The flesh stolen from the Armenian seemed to regrow over its own chalked limbs. Skin formed where only bone had been, eyes grew out of empty darkness. Instead of a skeleton, there stood a withered corpse, a mummy of dry flesh and leathery skin.

"I--" rasped the mummy, "I can speak once more. This language, it is strange and hard to form." His voice was like the dry hiss of a serpent who could talk. "What manner of men now walk the earth?" He turned his tiny black eyes upon the huddled Donaldbain.

"Is this the shape man has taken after...after--How long?"

Suddenly the speaking corpse spied the golden dragon that loomed above the room. He fell down to his knife-sharp knees and kowtowed before the hideous idol.

"Magnificent abubu, true form of Khaldis. Thou hast kept faith with me in death, as I kept faith with thee in life."

His devotion finished, the corpse threw a malevolent stare at the faint young Gael across the room.

"Tiny, degraded, enfeebled as the race of man has become, I read the thoughts of those I slew and learned that even the meanest of them are heir to knowledge beyond the pride of kings in my own day! Over the uncountable ages men have learned the secret name of Khaldis, the name his priests once swore in blood to protect, the name of--Satana!"

Donaldbain stumbled back against the granite wall. The room whirled around his head and he feared he would faint.

The specter clenched his claws into a fist. "Tell me, who is king in Biainas now? Speak, for I can slay thee with a touch!"

Donaldbain gulped down a mouthful of air. "I-I have never heard of a kingdom called Biainas!"

The cracked grey lips of the thing drew back in hideous mirth. "Your answer pleases me, insect. My

vengence is complete.

"Once the world's mightest kings ruled the lands about the great sweet lake and I, Inuspuas, ruled the kings. But then came the Cimmerian barbarians. The time was not right to match my power against that of their fair northern gods. Because of that the cunning Argistis was able to deceive me, may Khaldis harry his soul. He begged me, for safety's sake, to take into my charge the treasures of his realm, his wives and the heir to his throne. I consented and let the treasures of Biainas, the royal household with its thousand soldiers and servitors gather with me in the house of Khaldis, cut from the bowels of his sacred mountain, my retreat, the cradle of my power.

"I did not expect rebellion--fool that I was to underestimate his hatred of me and his fear. While I sat in meditation, the mountain shook and the only egress to the outer world was sealed off by an avalanche of Argistis' making.

"I was entombed, but I did not die. Long before, by a pact with Khaldis, it was promised me I should not perish while another enjoyed life within my reach. I consumed the lives of those trapped with me and their dying sustained me--like bread and wine sustains a creature like you! And while I lived the lands of Biainas did not escape my curses.

"But all the lives I had consumed were insufficent to thwart the uncountable years. I aged and withered, I turned to bone and then to dust upon the throne where I sat. But it was not death, but sleep only, a sleep awaiting this day when the touch of vital flesh would recall me to wakefulness.

"For you, insect, I have a use. My powers have not yet returned to their fullest. I require a slave."

The thing's eyes, so alive and commanding in that face of corrupt death, penetrated to the core of Donaldbain's soul. Hiw own will left him like a phantom and he listened to the hissed commands without a thought of disobedience.

The thing called Inuspuas pointed a long skeletal finger at the panel and it slid open easily. The enslaved Donaldbain took down a torch from its sconce and walked out into the hallway, his limbs leadened by lethargy. The corpse followed, swaying precariously on it's wasted legs.

Soon the poet and the wizard's corpse arrived at the small exit Bingor and Donaldbain had made. Inuspuas regarded the hole for an instant and said: "The way looks unsafe. Go before me, test the path for your master and assist me through."

Unhesitatlingly the obedient Gael wormed his way through the gap on his hands and knees. Inuspuas, satisfied, bent his brittle frame and fed himself headfirst into the burrow.

Donaldbain, still on his knees, not having been bidden to rise, heard a garbled hiss come from the corpse and looked dully over his shoulder. The shock of what he saw banished his spell like a mist.

"Bingor!" he cried.

The little Arab was perched atop the rock pile, wearing the boots and galabia he had recovered from the floor of the corridor.

"Help me, sluggard!" the Arab shouted as he shoved rocks down from the top of the pile with his feet, tumbling them over Inuspuas' head. As fast as Bingor shoved stones upon him, the shrieking corpse-thing pushed them out of his way with incredible strength. But in his surprise and his fury, Inuspuas had lost control of Donaldbain.

The Gael threw off his drowsiness and attacked the wizard's wrinkled skull with the heavy torch he carried, laying to with a berserk ferocity. But the swift undead thing flung out a rail-like arm and clenched the torch by its end. Relentlessly Inuspuas pulled Donaldbain for all his desperate struggle, nearer to his corrupting touch and certain death.

Then Bingor found the keystone of the talus pile and Inuspuas screamed as the whole mass of rock cascaded down on top of his head and outstretched arm. Donaldbain leaped back from the rock slide but Bingor was painfully bounced down with it and thrown at the foot of the pile. But with the collapse of the talus went the support of the ceiling. A great fragment dislodged itself from the cave's roof and dropped to the floor. In rapid succession others followed it.

"Come," yelled Donaldbain, pulling the battered and prostrate Bingor out of the way of the falling rocks, "or we'll be crushed!"

He shoved his companion through the exit and quickly scrambled after him into the open air of the sunlit cliff. The groaning mountain filled in the cavity behind them as they hurriedly made their way down the valley.

LETTERS

DEAR EDITOR,

Steve Jackson's feature, "Notes on the Ogre", came as a pleasant surprise to me. A long time ago when I must have been at least ten or eleven, I read Laumer's Bolo stories and was and am still impressed by it. Contrary to Mr. Jackson's pessimistic view of the future of the armored fighting vehicle, I feel that the tank still has a role in combat in the future. His idea that armor development is crucial to the life of the tank is very correct in that the whole idea of the tank is based on its armor. If a particular tank does not have the "correct" amount of armor, it is relegated to other roles, i.e. personnel carrier, ambulance, or some other vehicle in which only the chassis is normally used. Therefore, in order for the tank to remain a viable weapon of the future, it must be able to sport armor that can protect it against any weapon it might meet. Mr. Jackson seems to think that by the time a robot is feasible, that small scale nuclear weapons will also exist. Possibly so, but I also think that a robot tank will meet any large scale nuclear weapons and therefore should only have to be able to withstand a relatively small nuke that has a limited bursting range and also is very clean. My reasoning behind this is that a large nuclear weapon is just that--large. The amount of radiation, fall out, and general destruction to objects other than the target would be prohibitive unless the defender can rationalize searing miles of territory and frying the defending troops just to get one tank. But if the robot tank is as destructive as Mr. Jackson makes it out to be, then it might be a profitable exchange.

Since everyone else keeps sending in ideas for games I might as well add my two cents worth. The first idea is based on Anne McCaffrey's novels on "the Dragon Riders of Pern", Dragonflight and Dragonquest. The books deal with men riding dragons to defend their planet from thread, an unintelligent organis consumer from a planet in the same system. There are different sizes of dragons and what is interesting about them is that they can teleport and also travel through time. The second idea is based on a little known book by the name of Junkyard Planet. While the book provides entertainment, it also describes lots of combat machines since the planet is a munitions dump that has been deserted by the armed forces after the end of the war. The author's name is Piper and he is an ordnance expert. The last idea is spurred on by AH using Heinlein's Starship Troopers. Isaac Asimov has written an excellent trilogy of books that could be used for just about any type of game you wished whether it be military, diplomatic, exploration, or what, his Foundation Trilogy is a good bet for a game. So perhaps TSG can pull a big one with it.

David M. Jung
Illmo, Mo.

I would rather wait a year for a well-done, finished game, than two weeks for a half baked production schedule piece-of-garbage. What do I care about cost effective, I'm a gamer not a publisher. Perhaps simulations were never meant to be a business, but a labor of love. I do not enjoy learning intricate rules only to find the game unplayable. I can never forgive SPI for the horror called GLOBAL WAR. It's such a terrific idea, I hunger for a "decent" strategic treatment of the entire Second World War.

K. A. Blanch
Pacifica, Co. 94044

GODSFIRE

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Detailed rule booklet (cover by Elrohir)
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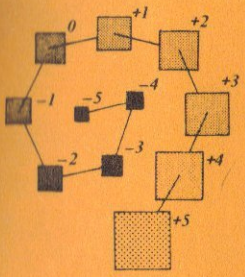

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Late last year, Metagaming tried an experiment...a small, inexpensive game designed for a playing time of an hour. If it went over, it would be the prototype of a new line — the MicroGames. It was called OGRE.

It worked. OGRE is selling like crazy — and getting good comments. Everybody liked the idea of a game they could play in an hour. And whenever two people sat down to play it, they'd finish one game...and start another. "Come on," one would say. "I bet I can get you this time." And they'd be at it again. Playtesting these used up a lot of copies — everybody wanted their own.

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MicroGame #2...

CHiTiN: I

THE HARVEST WARS

Chitin is a tactical combat game based on Metagaming's upcoming society-level game, *Hymenoptera*. In *Hymenoptera*, hives of intelligent insects war among themselves for space and food, using their biotechnology to breed ever more fearsome types of warriors. *Chitin* shows what happens when two small hives clash.

In *Chitin*, the objective is to have your workers bring back the Harvest Chits scattered across the board. The problem, of course, is that your enemy wants them too. In the learning scenario, each hive has four types of fighters, each with its own strengths and weaknesses. Advanced games add ever-increasing numbers of units, flying and command types – and allow points for bringing back not only food but also the bodies of enemy (or friendly) units. The Hive must eat...

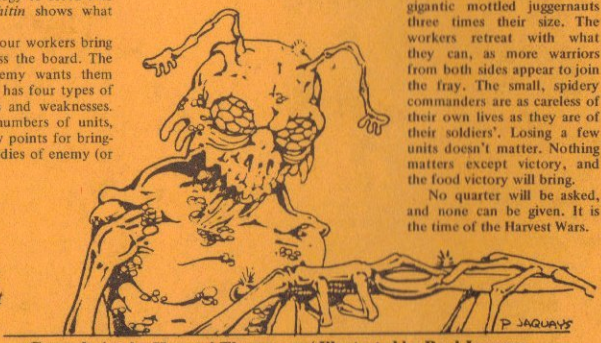
Components include:

- *9" x 14" rule booklet*
- *Over 100 unit counters*
- *Illustrated rule booklet*

Call it summer. There are seven seasons on this world, but now is the time of harvest. The dun-colored workers leave the hive, moving into the valleys to gather the crops.

But other hives want those crops, too. A horde of gleaming fighters – spiked travesties of the busy workers – tears into their midst, killing as viciously and efficiently as the insects they are. Then, incredibly quickly, comes the attackers' turn to die, crushed by gigantic mottled juggernauts three times their size. The workers retreat with what they can, as more warriors from both sides appear to join the fray. The small, spidery commanders are as careless of their own lives as they are of their soldiers'. Losing a few units doesn't matter. Nothing matters except victory, and the food victory will bring.

No quarter will be asked, and none can be given. It is the time of the Harvest Wars.



Game design by Howard Thompson / Illustrated by Paul Jaquays

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